

MANUFACTURERS RECORD.

A Weekly Newspaper Devoted to the Industrial, Financial, Railroad,
Mining, Contracting, Engineering, Building, and General
Business Interests of the South and Southwest

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In This Week's Issue:

Appalling Weakness of National Defense Through
Lack of Nitrate Plants, the Concentration of Muni-
tion Plants Along the Vulnerable Atlantic Seaboard
and the Absence of Great Iron and Steel Plants in
the Interior.

Southward the Star of Protection Takes Its Way.

American Cotton Manufacturers Association in 20th
Annual Convention in Atlanta.

Can Peanut Oil Industry Be Commercially Estab-
lished Here?

BALTIMORE, APRIL 6, 1916



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Vol. LXIX.
WEEKLY

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MANUFACTURERS RECORD

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HOW THE PAPER SCARCITY IS HURTING NEWSPAPERS AND THE REASONS.

THE newspaper publishers of the land are up against a tough proposition in scarcity of paper, a very heavy increase in price and the possibility of a wholly inadequate supply.

Why?

Because through our national shortsightedness we depended upon other countries for chemicals needed in paper manufacture and failed, through lack of adequate protection, to develop this industry in our own country.

Under the false theory of free trade we made ourselves dependent upon other lands for things which we should be producing at home.

But, say some of the papers and some other free traders, the manufacturers should have developed these industries without protection.

Why didn't the free traders and the newspapers which take such a stand invest their own money to create these industries? The field was theirs, their capital was as good as anybody else's and they surely should be willing to invest their money in enterprises which they insist some other intangible man should establish.

No duty devolved upon any other particular man or men to invest their money in industries whose possible profits did not appeal to them.

When this fact is driven home upon those who are always eager to make somebody else build railroads and establish factories, without any assurance of profit, there will come a clearer understanding of business conditions, and protection against foreign invasion of our markets, to the ruin of our prosperity, will become as popular as protection against an armed invasion by foreign armies is now becoming since Mexico showed us our weakness.

NO INVIDIOUS COMPARISONS.

THE editor of the MANUFACTURERS RECORD has been quoted in an Atlanta paper as saying that "Miami has the brightest future of any city in Florida, and perhaps in the entire South."

Now, we are enthusiasts as to Miami, but the same is true of many other cities in Florida and other parts of the South, but we would no more make comparisons between them and set the crown upon any one brow than would a young man, deeply in love with two beautiful girls, and feeling that he would be perfectly happy if he could win either, attempt in the presence of the two to say which was the more lovely and charming.

Three Rotten Rope Links in Our National Chain of Defense.

THE chain of protection which is supposed to encircle our country and guard it against invasion should have every link unbreakable.

The whole chain is as weak as any link.

What, then, must be said of a country which permits three links at the most vital points to be made, not of tested steel, but of rotten rope?

These three rotten rope links make all the rest of the chain as weak as they are. The breaking or the cutting of either one of these rotten links means the complete destruction of the entire chain.

How great the danger, then, to our country when we find that there are three such links, each one of which should be unbreakably strong if we are to have any national safety! The three rotten rope links are as follows:

First—Without nitrates there can be no explosives.

Deprived of a supply of nitrates, we would seek in vain to produce the ammunition needed in war.

Our nitrates come from Chile, 3000 miles away.

The supply could be instantaneously cut off at any moment.

An enemy's naval vessels able to blockade the coast of Chile or to capture vessels carrying nitrates, or an embargo by Chile on the exportation of nitrates, would make us immediately absolutely helpless. For nitrates in the manufacture of explosives there is no substitutes so far as science knows. Moreover, nitrates are as essential for soil protection as for national protection.

Can we quite conceive how this situation has never been so deeply impressed upon our national authorities and our army and navy officials as to have literally compelled a safeguarding of this link and a substitution of a link of steel for this rotten link of rope in the national chain of preparedness?

Second—In a narrow strip of country running from Boston to the capes of the Chesapeake Bay practically all of the big guns, and the explosives and the shells for them, and the rifles and the ammunition for them, are produced.

In that same stretch of country we build practically all of our naval vessels and our merchant marine shipping.

Newport News, almost at the mouth of the Chesapeake Bay, has by far the largest amount of shipbuilding now under way of any yard in the country, aggregating about \$27,000,000. The Government has a shipyard and naval base at Portsmouth, a few miles away.

Going North, we find two big shipyards at Baltimore, and then at Wilmington, and at Philadelphia, and at Camden, N. J., and New York, and on up to Boston, there are other yards, private and governmental, doing a large proportion of the shipbuilding for war and for commerce of the entire country. Should this narrow strip of territory, covering 300 or 400 miles along the Atlantic coast and probably not averaging fifteen or twenty miles wide, be blockaded or captured, and either is entirely conceivable, we

could not increase our shipbuilding nor repair our naval vessels, nor continue the production of munitions of war, except to a very limited extent. These things would be true to a very large extent under a blockade; they would be fully and completely true in the event of a capture of this territory, and such a capture every intelligent naval and army officer recognizes as a dangerous possibility.

Can we conceive that this great nation, with 100,000,000 people, with its vast mineral interests offering boundless opportunities for the development of munition-making and chemical industries in other parts of the country, has permitted this link in the chain of preparedness likewise to be made of rotten rope?

Third—Without iron and steel we could not build or operate ships or railroads, nor build guns, large or small, and so iron and steel are one of the three constituent elements absolutely essential in any scheme of self-defense for the nation. Take from us our vast iron and steel business, and, as repeatedly stated in the MANUFACTURERS RECORD, there would be an instantaneous collapse of any possible effort at national defense against an invader.

And yet, notwithstanding this situation, as individuals and as a nation, we have committed the egregious blunder of developing our iron and steel interests in such a way as to make them dependent to the extent that 90 to 95 per cent. of the output of the country is produced from ores taken from the border line of Canada, and which to reach the furnaces of the West and Pennsylvania must pass through two short canals, the Sault Ste. Marie, one on the American and one on the Canadian side. A few sticks of dynamite properly placed would destroy either or both of these canals, or one or more ships sunk in them would do the same. It would be possible, therefore, for an enemy, even if we were not in open war, to block these canals and instantaneously shut off the supply of ore for 90 to 95 per cent. of the steel industry of the United States.

Is it conceivable that as individuals and as a Government we have been so shortsighted as to permit such a condition as this to exist, making this link of the chain of the rottenest of rotten rope?

And yet these conditions have existed and do exist. Broadly speaking, nothing is being done to overcome them.

We are building no nitrate plants to make us independent of the supply that comes from Chile.

We are building no large ammunition or ordnance plants away from the coast available in time of war to safeguard us if the plants immediately along the Atlantic coast should be captured.

We are building no important new iron and steel plants in the South or Southwest or the far West for the purpose of lessening our present lamentable dependence upon the plants whose ores come from the Lake Superior district.

Individual investors have billions of dollars staked

in existing iron and steel plants, every dollar of which needs to be insured and can only be insured by the development of large iron and steel interests in other sections where local ores and local coal make possible iron and steel enterprises without dependence on Lake ores.

Until we develop the hydro-electric potentialities of this country so as to extract nitrogen from the air, and in this way secure a supply of nitrates, as essential for agriculture as for explosives; until we build in the great mountain range that stretches from Northern New York to the far South, or back of it in the Southwest and in the far West, great ordnance plants, and until we develop on a scale commensurate with our limitless resources and national dangers the iron and steel potentialities of the South and Southwest, we shall continue to have a chain that, while nominally intended for defense against invasion, literally invites destruction by reason of the weakness of the three links mentioned, which can best be classified as links of rotten rope.

These facts are so incontrovertible that no man can possibly assail their correctness. They are absolutely vital factors in national safety. The elimination of these three weak links of rope and the building into the chain of three links of steel would increase our protection against invasion, would be of infinite value in broadening our whole national development and in widening the horizon of our people of all sections and awakening them to a just recognition that in such a work as this there would be no North, no South, no East, no West, but one united country working, not for sectional advancement or individual profit, but for the highest development of the whole nation, thus giving assurance of national safety in every hour of danger.

ARE WE A NATION OF BLUFFERS?

SITTING in a hotel lobby a few days ago a rank German hater of this country, though living in it, said:

And so this is the country that had to take seven days to get a few thousand men together to invade Mexico, though it has been talking about fighting Germany!

And then, though the Americans in his presence felt like throwing him out, they realized the truth of his withering scorn and contempt. He had the facts on them.

When the Lusitania was sunk two pro-Germans, standing in front of a bulletin board of a Baltimore daily, said:

Never mind this country, it's only a big bluff; it won't go to war; it will settle for a few thousand dollars a head.

Unfortunately, these instances seem to voice the sentiment of many pro-Germans in this country, and however strong on the other side may be our theories, the pro-Germans have had the facts on their side.

NO WONDER HE WAITS.

A Mexico City subscriber to the MANUFACTURERS RECORD, in writing about payment of his bill, gives the following bit of interesting news:

Regarding my subscription, the matter has my attention, but certain deals of mine have been delayed a bit longer than anticipated, hence I have not felt like asking my friends to remit you the \$4. Rest assured it will be forthcoming very soon, that it has my attention and will not be overlooked. Exchange today at 2.65 means that \$4 United States would cost me to buy \$10.90. We therefore do not buy exchange, but wait for an opportunity to transfer from one home point to another.

LET THE GOVERNMENT CEASE ITS RECKLESS WASTE OF PAPER.

IF the Government itself would set the example of economy by ending the tremendous waste of paper in useless books and publications which are sent out in carloads and which finally go to the waste baskets, there would be more point to the recent communication of Secretary of Commerce Redfield to 4000 commercial organizations inviting their co-operation in efforts to relieve the present serious shortage of paper material.

In the letter of Secretary Redfield it is pointed out that the chambers of commerce and boards of trade in every city can render a signal service to all the people of the country, as well as to the paper industry, by urging individuals and firms in their respective districts to save refuse rags and papers.

The Department of Commerce is in a position to furnish inquirers with the names of leading wholesalers of paper stock. It is not, however, in a position to give the names of smaller organizations which assemble rags and paper and sell them in minor quantities—information which is in great demand right now.

The attention of the Department of Commerce was called to the fact that there is a serious shortage of raw material for the manufacture of paper, including rags and old paper. The president of a large paper-manufacturing company urged that the Department conduct an educational campaign to let the people know that the collection and saving of rags and old papers would greatly improve existing conditions for paper manufacturers. Something like 15,000 tons of paper and paper board are manufactured every day, and a large proportion of this, after it has served its purpose, could be used over again in some class of paper. A large part of it, however, is either burned or otherwise wasted. This, of course, has to be replaced by new materials. In the early history of the paper industry publicity was given to the importance of saving rags. It is of scarcely less importance now.

The Government itself is one of the largest purchasers of paper. The almost unlimited use of the franking privilege has brought about the publication of thousands of copies of useless documents. The storage-rooms at the Capitol are filled with such useless documents, and if Congress were to appoint a committee to get rid of these documents, a considerable profit might be made by selling them to some paper manufacturer. It is a fact that the Government even now is paying rent for a building that is used for no other purpose than the storage of useless documents.

In the Senate there is a committee on the disposition of useless papers in the executive departments. This committee is composed of Senator Jones of Washington, chairman, and Senators Sherman of Illinois, Lane of Oregon, Martine of New Jersey and Hollis of New Hampshire. In the House there is a committee on the disposition of useless executive papers, composed of Representative Talbott of Maryland and Representative Bennett of New York. These committees rarely, if ever, have a meeting, and yet they could do excellent work by getting rid of all the useless papers and documents in the executive departments and in the rooms of Congress itself. The members of the Senate and House committees on useless papers could easily teach the lesson of economy by setting to work and cleaning out all the storage-rooms and selling waste papers to dealers who now find themselves lacking in raw material. The committees on printing could aid the good work by placing restrictions upon the number of documents printed and sent out under the franking privilege.

It seems that the Government needs the example of the citizens; the citizens can find nothing of advantage or profit in the example of the Government.

THE RAILROAD QUESTION.

THE MANUFACTURERS RECORD bemoans the plight in which the railroads find themselves, but has never a word of sympathy for the people who are soon going to be in a much worse plight if conditions do not improve. This leads us to fear that in discussing this question the

MANUFACTURERS RECORD is thinking more about the interests of the railroads than of the public.

We have great respect for the MANUFACTURERS RECORD. No single force, in our opinion, is doing more to build up the South than this splendid publication. Its influence for good cannot be measured. Holding such a position in the economic life of our people, it cannot afford, therefore, to refuse to see only one side of such a question as this. It is too big to be one-sided and thus eventually to lose that fine influence which it now exerts among our people.—Winston-Salem (N. C.) Journal.

Our good friend of the Journal is entirely mistaken. We have no interest in the railroads other than as they affect the business interests of the people, farmers, merchants, manufacturers and all others. Our sole effort is to help save the situation and lessen the destructive influence upon business of lack of adequate transportation facilities. It would require \$10,000,000,000 to adequately develop the transportation interests of the country within the next five years. Everything that lessens the power of the railroads to raise so vast a sum falls back upon the people themselves.

THE MANUFACTURERS RECORD speaks not for the railroads, but for all classes of people, and it voices what it believes to be the truth without regard to whether its views are in harmony with those of railroad officials or of shippers. It is not biased in favor of either, but if it were influenced by either side, the fact that practically all of its subscribers and advertisers are shippers and feel the burden of the railroad shortage might be counted upon to take their point of view.

On the contrary, our viewpoint is with neither side, but with all sides, as we see it, of this great question.

WAR MAY COME SOME DAY, BUT ARMIES AND NAVIES NOT NEEDED!

MR. PRESIDENT, by enlarging our military and naval establishment we are not preparing this nation for peace, but for war. We are adding fuel to the conflagration that is spreading over Europe. We are preparing the minds of our people to catch the flame and burn like tinder. We are teaching our people to think war and to depend upon it as an instrument of good instead of a devastating, consuming evil. If the Congress of the United States enters upon this unfortunate course, it will take upon itself a fearful responsibility. There may be times, as I have said, when war may be justified as a choice of two evils. It is possible, but not probable, that this nation may some time be called upon to defend itself by force of arms. The call of humanity may some time compel us to resort to force of arms to vindicate the rights of the oppressed and civilization, morality, law and order on this continent. We may be impelled to such action by a high sense of duty; but if we do, the means will be provided. When a nation resorts to force, to such an end and with such a motive, previous military preparation will not be needed. It will not take the form of militarism; it will not excite a lust for war. The duty will be too solemn, the obligation too sacred to engender the thought of evil. If this shall not be true, the duty will not exist, and this country had better hold its hand until the duty is imperative.—Senator Works, in United States Senate.

Now, if anybody, in or out of Congress, can beat that asininity, we would be glad to see him try.

According to Senator Works, we may some day be compelled to go to war, but no preparation, no army, no navy will be needed. We will just say boo! to our enemies, and they will run from us.

It reminds us of a statement made a few weeks ago by a good woman arguing against preparedness. "What would you do," she was asked, "if a burglar broke into your house?" "Why," she replied, "I would ask him to let me pray for him."

Now, we have great faith in prayer, but the Bible says faith without works is dead.

Someone has impudently said that you could not imagine Christ engaging in war. Could they imagine Christ standing by idly or unconcerned while murderers were killing innocent women and children? What would He have done if He had been witness to such a scene? Would He have passed by unconcernedly and said, "It is not my business to protect these helpless women and children?"

To ask the question is to answer it.

According to Senator Works, we are, we suppose, when we are forced into war, merely to think our enemies away from us or to think them into defeat.

Southward the Star of Protection Takes Its Way

[No more ringing denunciation of shortsighted partisanship in the face of a serious economic problem has been uttered than that contained in the speech of Dr. Charles H. Herty at the convention of the American Cotton Manufacturers' Association at Atlanta on Tuesday of this week. Dr. Herty is president of the American Chemical Society and is recognized as an authority in his line. Proclaiming himself to be a Democrat, he denounces the Democratic party as responsible for an astounding situation in the important dyestuff industry of the United States. He accuses the Secretary of Commerce and the Democratic majority of the Ways and Means Committee of the House of being recreant to their national duties in that partisan consideration has prevailed where statesmanship and broadminded Americanism were demanded.]

With protection American manufacturers and capitalists stand ready to proceed with all possible haste to the development of a national self-contained dyestuff industry; without protection and an effective anti-dumping clause, not only the manufacture of dyestuffs in this country but the entire cotton goods industry of America is imperiled.

The necessity for protection of American industries is becoming more and more recognized the country over, and the newspapers of the South continue to give evidences of the fact that a change of opinion is taking place in the minds of those who have hitherto opposed protection. Some recent expressions along this line are given herewith.—Editor Manufacturers Record.]

Wherein Democrats and Republicans Ought to Agree.

[Washington (D. C.) Post.]

Two great projects of industrial development having a vital connection with military preparedness are under consideration by Congress. One is the proposition that a protective duty should be laid upon dyestuffs, as an inducement to American manufacturers to establish plants, on condition that they shall also manufacture the "intermediates" which are essential in the manufacture of high explosives. If such plants existed they could be transformed within 10 days into factories producing explosives instead of dyestuffs, and thus the United States would be in a state of preparedness comparable with Germany, whose dyestuff factories are now furnishing the explosives which are battering at Verdun in apparently inexhaustible quantities.

The other project is the development of cheap water-power for the manufacture of nitrogen from the air, to take the place of Chilean nitrate in the manufacture of powder. As a dyestuff factory can be transformed into an explosive factory, so a factory furnishing nitrogen for war purposes could be utilized for supplying fertilizer.

Here are two modern, scientific industries, industrial and military, which can be established in the United States by proper legislation. Germany and other European countries have already proved that these methods of manufacture are feasible, economical and of immense benefit, both in peace and war.

If it is acknowledged that money and skill can create these great industries in the United States, there should be enough legislative skill and patriotism in Congress to initiate the work on a basis that will safeguard the people's rights. Constructive ability may be required to frame laws that will stimulate enterprise and at the same time prevent monopoly. But such constructive ability exists in Congress, if it will detach itself from considerations of partisanship.

Congress has retained the duty on sugar, notwithstanding the majority policy in tariff matters, and Congress can impose a duty on dyestuffs with equal regard for the public welfare as superior to tariff theories. Congress has carefully safeguarded the public lands and water-powers against private exploitation, and it can now provide for the use of these lands and water-powers for the public good. Non-use of the tariff-making power and non-use of the natural resources are equally unthrifty if proper use of either will help the country industrially and improve its military defense. Surely prosperity in peace and preparedness in war are subjects upon which Democrats and Republicans ought to be able to agree as Americans.

It Should Not Be So.

[Newberry (S. C.) Observer.]

The North Carolina farmer gets up at the alarm of a Connecticut clock, fastens his Boston suspenders to his Detroit overalls, washes his face with Chicago soap in a Pennsylvania wash pan; sits down in a Cincinnati chair, puts his food upon a Grand Rapids table and starts his breakfast with California prunes, followed by Indiana hominy fried in St. Joseph lard and biscuits made from Indianapolis flour baked on a Detroit stove. Then he puts a St. Louis bridle on a Tennessee mule and plows a farm covered by an Ohio mortgage. When

bedtime comes he reads a Bible printed in Chicago, says a prayer written in Jerusalem and crawls under a blanket made in New Jersey, only to be kept awake by a North Carolina dog—the only home-raised product on the place.—Newspaper Clipping.

It might have been added that he insures his horses, cows, barns and residences in Pennsylvania, Liverpool or Hamburg insurance companies. Lots of these things we ought to do for ourselves.

Bob Ingersoll said many foolish things and some wise ones. Which class the following falls under each may decide for himself: "So long as any people raise the raw material, ship it off to a distant State to be manufactured and then buy it back at fancy prices as finished products they will always remain poor, ignorant and Democrats."

Democracy Balks at a Great Opportunity.

[Atlanta (Ga.) Constitution.]

Right on the heels of re-enacting and extending the tariff of one cent a pound on sugar, the Democratic majority in Congress occupies the somewhat inconsistent position of refusing to provide a tariff which will make this country independent of Germany in the matter of dyestuffs.

There is no reasonable criticism of the Democratic majority for its extending the sugar tariff. It was done primarily as a revenue measure. In the present financial circumstances of the Federal Government it perhaps had to be done. There was no other apparent course.

It is also true that the primary object of a tariff on dyestuffs would be protection rather than revenue. The purpose of such a tariff is to build in this country a needed industry which does not now exist. To do that it is necessary to guarantee American investors in dyestuff plants necessary protection against ruinous German competition for a period of something like four or five years, or until they shall have passed the experimental stage and shall have reached the point where they can successfully build themselves without further Government aid. This period will come, it is said, when the industry has been developed to a point where every by-product is utilized and all waste is eliminated, as has been done in the perfected German plants.

The inconsistency of the majority position does not proceed from the similarity of the object of the tariff in the case of sugar and dyes, but rather from the fact that the proposed tariff on dyestuffs would hardly affect the consumer at all, while he pays an appreciable tax on every pound of sugar he uses. It is said it costs somewhere from one to two cents to dye a dozen pairs of socks. The amount of dyestuff used in an entire suit of clothes, costing \$25 at retail, would be less than three cents. The cost of dyes entering into other fabrics and materials is in similar proportion. The added cost is so small that it can scarcely be said to reach the ultimate consumer at all, and even if it did, he would many times prefer to pay it than to do without it. It is preposterous, however, to suppose that three cents would be added to the cost of a \$25 suit of clothes on account of a tariff made at most for a few years until the American dyestuff industry could establish itself beyond the possibility of destruction by ruinous German competition following the war.

The Democratic majority owes it to the country to enact some definite and substantial business legislation.

It owes it to itself, and yet it balks at this, one of the foremost opportunities before it.

Does it propose to leave to the Republicans this interesting opportunity and the credit that must go with it?

Tariff in the South.

[Wheeling (W. Va.) Intelligencer.]

It is encouraging to see sentiment in the South developing against the discredited free-trade conditions of the Democratic party. While the Intelligencer does not anticipate any radical change in the political attitude of the South at any near period, still it believes the protective heaven is working which may in time see it voting for those Republican principles against which it has so long stiffened its neck. The MANUFACTURERS RECORD of Baltimore is doing good work in encouraging this new spirit of independence cropping out in certain sections. In its last issue it prints over two pages of extracts from Southern newspapers expressing views favorable to the protection of certain Southern industries. An editorial in the Lynchburg (Va.) News, which is the property of a member of the present Congress, is printed in the MANUFACTURERS RECORD's symposium, of which the following is a significant quotation: "No matter what a man's politics, he may be perfectly consistent in advocating a tariff on such products as medicines and dyes sufficiently high to induce the manufacture of such things in the United States and keep it there all the time, if necessary, to cause such manufacture here."

It is strange that in the face of such sentiment the leaders of the Democratic party should so stubbornly set their faces against the inevitable. On this very question of dyes referred to by the Lynchburg News it is represented that Secretary of Commerce Redfield is opposed to any tariff legislation on the subject at this session of Congress. At a secret meeting of users and manufacturers of dyestuffs with a representative of the Department of Commerce the latter informed the former that it was useless to expect any protective legislation from Congress. More than that, a dye manufacturer disclosed the circumstances of a conference he had with Secretary Redfield, who stated that he was opposed to the bill for dyestuffs protection introduced in the House by Representative Hill of Connecticut, and that if it passed both Houses of Congress he would use what influence he possessed with the President to have him veto the measure.

It appears that the main objection to the Hill measure is that it is looked upon as a political bill. Such narrow conception of public duty will only have the effect of disgusting that element in the South that is now looking with favor on protection. And they are not likely to fall over themselves, either, in supporting a President who has declared himself against protection in any form. Yet with all this, the present Democratic free-trade bill bears the name of a Southerner, who is obstinately proud of it.

Holland Wants Copper Plates.

Ver. Bureau voor Handelsinlichtingen, O. Kamerlingh Onnes, Directeur, Oudebrugsteeg 16, Amsterdam, Holland:

"Dutch merchants want to represent American manufacturers of copper in staves and plates, technical and electro-technical plates and tools."

MEANWHILE AN ESSENTIAL ELEMENT OF PREPAREDNESS IS IMPERILED.

THAT the du Pont Powder Company had lobbied against the provision in the army bill in the House for an appropriation of \$21,000,000 for the development of water-power and the establishment of a nitrate factory to be operated by private capital upon the payment of 3 per cent. interest to the Government was charged on the floor of the Senate by Senator Underwood of Alabama.

The assertion of Senator Underwood followed the introduction of a bill by Senator Saulsbury, at the request of the du Pont Powder Company, for the issuance of a fifty-year permit for the development of water-power to the du Pont company under an agreement whereby the powder people would supply the Government with all the nitric acid that might be needed at a price which would add to the cost of manufacturing merely such profit as the Government itself might consider reasonable. In brief, the du Ponts, who were charged by Senator Underwood with having brought about the elimination of the Government co-operative scheme in the House, offers a plant of its own to the Government.

Senator Underwood, in discussing the manner in which an appropriation for a nitrate factory financed by the Government but to be operated by private interests had been defeated in the House, said:

"I do not mean to reflect upon the du Pont Powder Company. It is a legitimate business. It had a right before the House to oppose a similar provision which was defeated by the House, but the Senate has not a right to let the company succeed in defeating this provision.

"I have an article here by Hudson Maxim, a well-known engineer and inventor and member of the Naval Consulting Board, in which he denounces the proposals for Government ownership of munition plants. Hudson Maxim is a leading engineer for the du Pont Powder Company, yet he tries to bring Congress into contempt by saying that anyone favoring Government ownership is a pork-barrel politician. Then there is Hugh Cooper of New York, who is an excellent engineer, and I do not mean to reflect upon him. But he is a consulting engineer of the du Pont Powder Company. That company has obtained an option on a process for making nitrogen and is seeking power sites in case the water-power bill goes through."

The danger is that as a result of the fight between the two different interests, one seeking action and financing and the other seeking a permit for the du Pont company, nothing will be done. Meanwhile, the people of the United States continue to pay millions of dollars annually for Chilean saltpetre. Senator Underwood pointed out that the Chilean saltpetre in the country today is not one-twentieth the supply that Germany had at the beginning of the war, and yet Germany, with twenty times as much as the United States, was able to make it last only two months of the war!

Where is the big corporation that could stay out of the receiver's hands six months if its managers were of a kidney with those who have the management of this great nation of ours?

MARYLAND'S INDUSTRIAL PROGRESS.

SUBSTANTIAL gains are shown in a preliminary report of the Department of Commerce, Bureau of the Census, of the manufactures for the State of Maryland for 1914, showing the figures for that year in comparison with the figures of 1909. In compiling the 1909 figures reports on certain classes of small establishments were included which have been omitted in the latest report, hence a slight decrease of establishments is shown which the Bureau states does not actually exist. Despite this handicap, other items show a consistent gain for the period. The largest percentage of increase is shown in salaries, a rise of 32.2 per cent. being registered, from \$13,617,000 to \$18,008,000. This figure, when noted with that of the number of persons employed in manufacture and wage increases, indicates that a larger proportionate number of high-priced men were employed. In 1909 125,489 persons were employed in manufacture, and in 1914 131,333, an increase of

only 4.7 per cent. Wages increased from \$45,436,000 to \$53,821,000, or 18.5 per cent. The number of salaried employees went from 12,192 to 14,801, 21.4 per cent., while wage-earners increased in average number only 3.3 per cent., from 107,921 to 111,518. The \$44,707,000 increase in capital invested is 17.8 per cent., the total figures being \$251,227,000 in 1909 and \$295,934,000 in 1914. Primary horse-power employed rose from 218,244 to 274,443, 25.8 per cent.; value of materials from \$199,049,000 to \$238,982,000, 20.1 per cent.; of products, \$315,669,000 to \$377,764,000, 19.7 per cent.; value added by manufacture being, in 1909, \$116,620,000, as against \$138,782,000 in 1914, 19 per cent. gain.

A SOURCE OF INSPIRATION AND INFORMATION.

AN order has been received from T. Oregon Lawton, Jr., president of the Southeastern Life Insurance Company of South Carolina, with headquarters at Greenville, for yearly subscriptions to the MANUFACTURERS RECORD to be sent to a number of the company's agents located at various points in South Carolina. To each one of the agents Mr. Lawton has sent a letter to this effect:

There is so much inspiration and so much Southern information in the columns of the MANUFACTURERS RECORD that we have decided to order this splendid weekly journal for you. Please advise us if for any reason it fails to reach you promptly.

We find on the cover page, frequently, items that in themselves are worth the price of a year's subscription. It is brimful of the good things that are happening all around us, and I trust will give us a brighter vision of our own opportunities.

We greatly appreciate this action on Mr. Lawton's part, and are also gratified over the words of commendation which he has seen fit to write. Discriminating praise is always pleasing, and it is a satisfaction to find the efforts of the MANUFACTURERS RECORD accurately interpreted and defined. Success in the lines Mr. Lawton has named is the purpose which this publication has in mind.

We believe that the MANUFACTURERS RECORD will prove helpful to Mr. Lawton's agents, and to all others who, in any line of work, are interested in the development of the South.

APT WORDS ON EXCESSIVE COTTON PLANTING.

FROM some parts of the South come intimations that the folly of an increased cotton acreage is likely to be perpetrated this year. To those who contemplate making such a blunder, in the face of the lesson of added prosperity due largely to diversified farming, despite adverse conditions, the terse words of Cliff Williams of Meridian, Miss., may be of value:

When Mississippi raises what she eats and eats what she raises, and makes cotton her surplus crop, and quits eating up cotton before produced and exchanging cotton for mortgages, and sells her cotton to whom and when she pleases for cash, then, and only then, will Mississippi be the land of milk and honey, and plenty, too, and then the boys and girls will stay on the farm, and Mississippi will flourish like unto the green bay tree. Why not now?

And common sense echoes, "Why not now?" Why must the farmers, and hence the whole section, be the victims of such shortsightedness, to put it kindly, as is displayed by the man who thinks that when there is much talk of less cotton acreage the smaller supply will bring higher prices, so he will slip off and plant all his land in cotton while the neighbors raise the vegetables and other food products, and make a killing of it? To a man with a vision longer than a Hibernian nose such a course is obviously one of cutting his own throat, and maybe that would not be so bad if his were the only funeral, but others, too, suffer the consequences in more or less degree.

John M. Maxwell, Hopewell, Va., will organize a company to manufacture hosiery, and wants prices on the necessary machinery with accompanying equipment.

A Vital Phase of Preparedness.

[Knoxville (Tenn.) Sentinel.]

The Bethlehem Steel Co., which threatened to advance its prices to the Government if the bill to create a Government-owned armor-plate plant passed Congress, changed its tune radically when President Granger last week made his statement to Congress, offering to reduce price on a five-year contract.

If the Bethlehem people had begun the controversy with this kind of talk instead of beginning it with threats, it would have gone far to conciliate and bring about a state of good-will that might have been beneficial to all interests.

The MANUFACTURERS RECORD, which for some time has been urging the vital necessity, in the interest of preparedness and public safety, of locating munitions plants in the interior, says that if the Bethlehem or some other company now "will go one step farther and say that, in view of the danger of having all armor plants in one State, it will build another plant in the South, away from the danger zone, provided Congress will agree to give this Southern plant a long-time armor contract, it will win the enthusiastic commendation of the whole country and at the same time help to safeguard its own future by safeguarding the nation in time of war."

The MANUFACTURERS RECORD holds that it is criminal folly for this country any longer to permit its armor plants, its munition plants, and 90 per cent. or more of its steel capacity to be concentrated in a limited area, subject to capture and dependent upon supplies that could be instantly cut off. * * *

It seems to us that the MANUFACTURERS RECORD is eminently sound in its conclusions on this vital phase of the preparedness subject, and we trust both Congress and the industrial corporations concerned will give the MANUFACTURERS RECORD's representations the grave consideration due them.

Great Record of Exports and of Free Imports.

American exports for February reached a total of \$409,836,525, according to announcement made by the Bureau of Foreign and Domestic Commerce, of the Department of Commerce. This is the highest point ever reached by the export trade in this country, and exceeds the high mark for December, 1915, by \$50,000,000. It exceeds the total for January by \$83,000,000. The decline in January had been taken in some quarters to mean that the record figures for December had marked the high tide in the flow of American exports. The total exports for the first eight months of the fiscal year 1916 are \$2,586,301,570, and it now seems probable that the exports for the whole fiscal year will reach \$4,000,000,000.

February imports also set a new high record, being valued at \$193,935,117, which is about \$10,000,000 more than in January, and much above the total for any earlier February. Over two-thirds of the month's imports entered free of duty.

The excess of exports over imports amounted to \$215,901,408 in February and to \$1,295,217,462 during the eight months ending with February. Last year February showed an excess of \$174,682,478 and eight months' period an excess of \$578,834,390, or less than one-half that of the current period.

The international gold movements for February included imports valued at \$6,016,006, against \$12,730,492 for February, 1915, and for the eight months \$328,054,392 in 1916, against \$46,267,209 in 1915. Gold exports in February totaled \$13,684,667, against \$1,053,879 in February, 1915, and in the eight months \$47,741,575, compared with \$140,387,000 in a like period of 1915. The current fiscal year to the end of February showed a net inward gold movement of \$280,312,817, while a corresponding period last year showed a net outward gold movement of \$94,119,800.

6500-Spindle Yarn Mill.

A mill to manufacture fine yarns, Nos. 50 to 80, will be built at Gastonia, N. C., by C. B. Armstrong, who is largely interested in several established cotton manufacturing enterprises. The initial installation will be 6500 spindles, and it is probable that building contracts will be awarded within 10 days.

Put Government Armor Plant Outside the Danger Zone

[Newspapers, publicists and politicians have become impressed with the necessity for an iron and steel and armor-plate industry in the United States that is not vitally dependent upon the easily blockaded Lake Superior iron ore supply.]

There have been vigorous responses to the appeal of the Manufacturers Record that this country shall not make the mistake of permitting the entire armor-plate and munitions industry to remain in a small area of the East, wholly dependent on Lake Superior or foreign ores.

Herewith are some of the more recent comments that have been made.—Editor Manufacturers Record.]

Build an Armor Plant in the South.

[Wilmington (N. C.) Morning Star.]

Writing from Daytona, Fla., to the MANUFACTURERS RECORD, Editor Richard H. Edmonds has again emphasized the wisdom of establishing an armor manufacturing plant in the South. He does not state at what point, but that is not the important part of it, because that is inconsequential compared with the fact that the safety of an armor supply for the Government in time of war lies in so distributing such manufacturing plants that they will not all be subject to enemy danger as they are at present. It is altogether a reasonable contention of Mr. Edmonds that there is danger for the country in having all such plants concentrated in only one State. That certainly is very much like the proverbial and academic proposition of one's folly who carries all his eggs in one basket.

The three armor plants in this country are confined to Pennsylvania, and they are largely dependent upon the Lake Superior region for iron ore. Both the raw supply and the factories are in the danger zone of attack, and if by any means one or the other were to fall into the hands of an enemy it would be all over for the country as to armor plate. Therefore, the astute editor contends that "it is criminal folly for this country any longer to permit its armor plants, its munitions plants and 90 per cent. or more of its steel capacity to be concentrated in a limited area, subject to capture and dependent upon ore supplies that could be instantly cut off."

This has nothing to do with the possibility that the Government might establish its own armor plant under the Tillman bill authorizing it to do so. We rather regard it as impractical for the Government to own and operate its own armor plate factory, since the Government would not have its own iron-ore supply or its own smelting plant. It would have to depend upon the steel companies who do own the ore supply, so that the preparedness of the Government would be of a negligible character, even if it did have its own armor-plate factory.

Of course, as a last resort to avert imposition, the Government might try the experiment, but it is not likely to do it so long as the steel companies are willing to make concessions as they have recently proposed to do. Doubtless they can afford to make the concessions, otherwise we would hate to think that they have been intimidated by our Government, though it would have been worse for them to have succeeded in their attempts to intimidate the Government.

Anyhow, Mr. Edmonds submits to the steel companies themselves the proposition that any one of the three big companies now making armor plate could well afford to "invest some of its vast earnings in creating in the South an industry of this kind, which would be an insurance in time of war for every dollar now invested in iron and steel."

Locate Armor Plant Outside Danger Zone.

[Charlotte (N. C.) Observer.]

Writing to the MANUFACTURERS RECORD from Daytona, Fla., Mr. Richard H. Edmonds gives commendation for the statement made to Congress by President Grace of the Bethlehem company and thinks it would have been of untold value to the company in developing good-will, and of infinite value to the nation in creating a better feeling for the great corporations, if it had been presented at the beginning of the discussion, a month or more ago. Mr. Edmonds wants the Government and the steel corporations to unite in building an armor plant in the South, where the industry could be developed outside the danger zone. "If the Bethlehem or any other company will go a step farther," Mr. Edmonds suggests, "and say that, in view of the danger of having all armor plants in one State, it will build another plant in the South, away from the danger zone,

provided Congress will agree to give this Southern plant a long-time armor contract, it will win the enthusiastic commendation of the whole country and at the same time help to safeguard its own future by safeguarding the nation in time of war." So sure is he of his ground, Mr. Edmonds says that if there is any interior point, not dependent on Lake Superior ores, offering a better location than the South, that the plant should be located there. It is a fact that the armor plants, munition plants and 90 per cent. of its steel capacity is concentrated in a limited area, subject to capture and dependent on an ore supply that could be instantly cut off. Mr. Edmonds is sound on the proposition that any one of the three great concerns now making armor plate could well afford to invest some of its vast earnings in creating in the South an industry of this kind, which would be an insurance in time of war for every dollar now invested in iron and steel.

Folly of Carrying All Eggs in One Basket.

[Greenville (S. C.) News.]

Richard H. Edmonds, editor of the MANUFACTURERS RECORD, has for some time been preaching the doctrine of preparedness, as it pertains to the iron and steel industry of the United States. Mr. Edmonds, who, by the way, is a great factor in upbuilding the South, now issues a clarion call for an armor-plate factory located in this section. Some time since he pointed out the vulnerability of the iron-ore fields of the Lake Superior district—just across the line from a foreign country, and unfortified. These fields would be taken by an enemy.

Entirely logical is Mr. Edmonds in arguing that the munitions plants, the area producing iron ore, the steel industries should not be confined to a limited area. That might place the nation in a precarious position. Suppose an enemy should get possession of the Lake Superior district? Pitiful would be the plight of the United States until it could develop a splendid iron and steel industry elsewhere.

There are ore fields in the South. They are inland. It is hardly to be imagined that an enemy could take them. Why not have a great munitions plant, an armor-plate factory in the Birmingham section? As Mr. Edmonds points out, if there be some other inland point better suited to the purpose, why place the developments there.

It would at once be fortunate for the South, and wise for the nation, to consider this phase of preparedness; to free itself from dependence upon a comparatively small and a vulnerable area for a very great part of its steel and iron equipment. There is common sense, there is logic in the stand taken by the editor of the MANUFACTURERS RECORD. Whether the developments be carried forward by the Government or by private parties, thought should be taken for preparedness. If there is such thought there will be munition supply plants in the South.

Present Status of the Armor Plate Legislation.

Washington, D. C., April 1—[Special.]—As it now stands, the Tillman armor-plate bill provides for an appropriation of \$11,000,000 for the erection of a Government armor plant to have an annual capacity of not less than 20,000 tons of armor and to be erected at a "place or places to be approved by the general board of the navy with special reference to provisions of safety in time of war."

The quoted paragraph was inserted in the bill in response to widespread sentiment for the erection of new munition industries in the South and Southwest, where they would be out of the danger zone in case of war. If the Government goes into the armor-plate business, the three private plants, Midvale, Bethlehem and Carnegie will not increase their prices to the Government

during the period the proposed Federal plant is under construction. The announcement that prices would not be increased in an effort to amortize was made by Senator Oliver on behalf of the Midvale Steel Co. while the debate was in progress in the Senate. It is learned that the other companies will follow the lead of the Bethlehem concern, and, in fact, this is inevitable, as otherwise the prices of the Bethlehem company would be lower and would result in giving that company the monopoly of business during the three-year period.

On behalf of the three companies it is proposed that the Federal Trade Commission or some firm of chartered accountants go over the books of the existing concerns and ascertain the cost of manufacture, which would then be fixed as the price to be charged to the Government plus a profit that would be considered reasonable by the Secretary of the Navy.

It is probable that when the bill gets before the House an amendment will be offered to provide that the Government shall not go into the armor-plate business, if, after an investigation by the Federal Trade Commission, it is found that the prices of the existing plants are reasonable.

It is understood that a combination of Eastern Democrats and all but one of the Republican members of the Naval Affairs Committee is being formed to pigeon-hole the armor-plate bill, but it is not likely that this move will be successful. While a majority might vote to prevent a favorable report on the measure, the movement for consideration of the armor-plate bill is so strong that a special rule could be brought in to insure consideration.

Armor Plant for the South.

[Spartanburg (S. C.) Herald.]

Mr. Richard H. Edmonds, editor of the MANUFACTURERS RECORD, urges the building of armor plants in the South and advances the argument that at present all such plants are located within what might be termed the danger zone and subject to the same occupation should the country be endangered by invasion.

Should such development come into the South, there is no better district for their location than about Spartanburg, where there are two north and south lines of railroad, and from which territory the coast is reached by transportation facilities unequalled. The most direct lines of railroad from the South into the Middle West and the Lake Superior ore region meet at Spartanburg.

To Hear From the "Firesides" of the Country.

W. W. DICKINSON, President Arkansas Brick & Manufacturing Co., Little Rock, Ark.

Time alone crystallizes sentiment. Two years ago it was "peace at any price." Today it is "peace with honor." The people were divided on the necessity for preparedness; now they are almost a unit in favor of it. Persuasion, without the means to enforce, does not appeal to a bloodthirsty foe, but he will hesitate when the breastworks are impregnable and to attack means death.

Our President has felt the pulse of our people. He has found that true patriotism still lives in the American breast; that honor is without price and we favor maintaining it. Better to die honored and respected than to live in dishonor and hate. All that is noble and good comes from an honorable race—Villas come from the reverse.

The President says that he prefers to know the sentiment of the men who sit around their peaceful and honored firesides to that of the Congressional cloak-room gossip. With this invitation from him whom we have placed at the head of our nation, let all of us "fireside" Americans give expression and assure him that the "firesiders" will come out when needed.

American Cotton Manufacturers' Association Holds Interesting Meeting

PROGRAM OF SPEECHES AND DISCUSSIONS INCLUDE VIGOROUS FEATURES—PARTY IN POWER SCATHINGLY ARRAIGNED FOR COURSE IN REGARD TO DYE-STUFF FAMINE—RESOLUTIONS PASSED ASKING CONGRESS TO ACT

[Special Dispatch to Manufacturers Record.]

Atlanta, Ga., April 5.

Some exceedingly vigorous papers and discussions marked the proceedings of the twentieth annual convention of the American Cotton Manufacturers' Association, held here on Tuesday and Wednesday of this week. The meeting was also noteworthy for the unusually large attendance of representative men of the industry. The attendance was augmented evidently on account of Atlanta's nearness to the big cotton manufacturing centers of the South, enabling many mill-owners and executives to come without much loss of time from their work.

The meeting was formally opened on Tuesday morning by President Scott Maxwell, who in his annual address, printed in full in this issue, reviewed conditions of the past year and pointed out some of principal matters, both commercial and legislative, that are of especial importance at this time.

The delegates were welcomed to Atlanta by Mayor James G. Woodward, and response on behalf of the association was made by Stuart W. Cramer of Charlotte, N. C.

The program, which dealt with a number of vital

problems now confronting the textile trade, included the following papers:

"American Branch Banks in Foreign Countries and Their Part in Developing Export Trade," by Beverly D. Harris, vice-president National City Bank, New York city.

"The Dyestuff Situation," by Dr. Charles H. Herty, president American Chemical Society, Chapel Hill, N. C.

"The Work of the Federal Trade Commission," by Wm. J. Harris, Commissioner, Washington, D. C.

"Foreign Trade Building," by Donald Frothingham, manager Foreign Trade Information Bureau, American Express Co., New York city.

"Welfare Work," by Charles R. Towson, secretary the International Committee of Y. M. C. A., New York city.

Each of these formal papers was followed by discussion on the part of the delegates, and many interesting phases of each subject were brought out and experiences were interchanged, thus giving all the benefit of special information which men from different parts of the country have acquired regarding these different matters.

Following the stirring address of Dr. Charles H. Herty on the dyestuff situation, in which the Democratic administration was censured for not taking favorable action on the bill to aid the establishment of a dye industry in this country, the convention adopted resolutions urging Congress to enact emergency tariff legislation to aid the dyestuff industry and to provide anti-dumping legislation.

The main work of the association is handled through committees, which make their annual reports and recommendations at each meeting. These committees and their chairmen include the following:

Textile Bureau, R. M. Miller, Jr.

Textile Alliance, Caesar Cone.

National Council, Scott Maxwell.

Tariff and Legislation, R. M. Miller, Jr.

Trade Abuses, Caesar Cone.

Foreign Trade Council Meeting, D. Y. Cooper.

Management Textile Schools, S. W. Cramer.

The delegates and guests of the association were delightfully entertained by the citizens of Atlanta, one of the most interesting trips being a visit to the new plant of the Atlanta Compress & Warehouse Co., which will have a storage capacity of 250,000 bales of cotton.

Scathing Arraignment of Party in Power for Failure to Act in Dyestuff Crisis*

By CHAS. H. HERTY, Chapel Hill, N. C., President of the American Chemical Society.

An astounding situation presents itself today to the American nation. Industries, whose annual output is valued at billions of dollars and whose laborers number millions of American citizens, find themselves directly faced with a most serious crisis due to the cessation of shipments of dyestuffs from Germany, our chief source of such products before the outbreak of the European war.

To meet this situation American manufacturers and capitalists have stood ready to proceed with all possible haste to the development of a national, self-contained dyestuff industry. They ask only that Congress insure them against unjust foreign competition, which they rightly realize cannot be met on even terms for several years, and which they have every reason to believe will be ruthless in its character in the effort to regain lost markets.

This reasonable assurance by Congress, however, has been withheld, and the Democratic party, now in control of both the Senate and the House, stands today responsible for the astounding situation and its continuance. Partisan considerations have prevailed where statesmanship and broadminded Americanism were demanded.

This charge is not lightly made, for it is against my own party. To justify it let me trace briefly the influences bearing on this problem, classifying these under two terms commonly used in describing certain chemical reagents, namely, "accelerants" and "retardants."

First—as to "accelerants": Immediately after the outbreak of the European war the New York Section of the American Chemical Society, foreseeing economic distress, appointed a committee of experts to study the dyestuff problem. Its report recommended tariff increases considered to be the minimum for the development of a domestic industry, such rates to be supplemented by an effective anti-dumping clause. This report, unanimously adopted by the Section, was promptly communicated to Congress. Then came the British Orders-in-Council and the embargo on dyestuffs by Germany. Efforts of the State Department to bring relief failed.

On the opening day of Congress Representative

Hill of Connecticut introduced a bill, H. R. 702, to encourage the upbuilding of a domestic dyestuff industry by higher tariff rates. This bill is simply the embodiment of the rates recommended in the above report. In January hearings were held on this bill, and the remarkable sight was presented of manufacturers and consumers with practical unanimity urging the prompt enactment of the measure, and assuring abundance of capital, raw material and technical skill to effect the immediate expansion of the industry.

Nearly three months have elapsed since the hearings were held. Meanwhile, the industrial distress has grown daily more acute, and today that bill, the only legislative proposal on this subject before Congress, is effectively "pigeonholed."

As to "retardants"—these include the Secretary of Commerce and the Democratic majority of the Ways and Means Committee of the House.

First: The Secretary of Commerce, through the press bulletins of the members of his department, has regaled the country for months with remarkable but ever evanescent new sources of dyestuffs and continued ill-founded optimism. He stands today utterly opposed to anything suggestive of protection. This attitude is in striking contrast to that of the great organization of the business men of the nation, who through the Chamber of Commerce of the United States at its recent annual convention endorsed both dumping legislation and industrial protection for those industries which in the national public interest should be developed. The Secretary insists that an anti-dumping clause is sufficient. Such a clause was recommended by the New York Section of the American Chemical Society, but as a corollary to a higher tariff.

Second: The Democratic majority of the Ways and Means Committee refuses to allow the bill to come out of the committee onto the floor of the House. Surely this is trifling with a serious national disaster. If the bill, now in their safekeeping, is not considered a proper bill, is not the country entitled to a better substitute which will commend itself to those who will have to take the risks in this industry?

It is vitally essential that something be done promptly. That the request for a higher tariff is

not without warrant is shown by the fact that the British and Japanese Governments promptly recognized the peculiar claims of the dyestuff industry upon governmental aid, and already in both countries the industry, sufficient for home needs, is well under way through government loans of capital, interest guarantees and tariffs. Are we alone to be left at the close of the war in the hands of the German monopoly of dyestuffs? Can we hope thus to build up a great export business for our cotton goods?

Let me quote in translated form from the article by G. Stein in the most recent issue, February 1, 1916, of the *Farber-Zeitung*, one of the leading German dyestuff journals:

"The German coal-tar dyestuff industry ought, after the conclusion of peace, to be permitted to sell dyestuffs only in Germany and Austria, in Turkey and Bulgaria, until the German textile factories are again fully occupied and all warehouses and stores and all consumers are again supplied with good white, dyed and printed goods. Only then would it be permissible to furnish German coal-tar dyestuffs to neutral or hostile foreign countries."

To fully cover the necessities of our domestic dyestuff situation I would urge:

First: The prompt passage of a bill embodying the rates recommended by experts in this field, thus insuring the prompt expansion of the industry.

Second: The passage of an effective anti-dumping clause or unfair practices act which would guard our manufacturers against that unfair competition we have every reason to expect from the German monopoly in coal-tar dyestuffs.

Third: The passage of the Tariff Commission bill now before Congress. Such a body would give an impartial judgment as to when the industry is sufficiently established to no longer need the advanced rates now advocated, thereby protecting the public.

In these matters the voice of your Association should be heard. Your interests are vitally at stake: the welfare of your operatives depends upon you. Arouse the Southern press to energetic advocacy and impress Southern Democratic Congressmen with the justice and urgency of your cause. Neither Democratic doctrine nor Republican doctrine should be determinative in this issue. "America-First" alone should decide.

*Synopsis of an address delivered April 4, 1916, before the Annual Convention of the American Cotton Manufacturers' Association at Atlanta, Ga.

Conditions Confronting Cotton Manufacturers

UNWISE LEGISLATION MAY HAVE DISASTROUS EFFECT UPON INDUSTRIES OF THIS COUNTRY.

By SCOTT MAXWELL, Cordova, Ala.

The occurrences of the past year have made for the discrediting of many prophets; the unexpected has been the rule, and what appeared in the beginning to be a year of uncertainties and slow business developed into a brisk and firm business condition. The war had built a tariff wall around the industries of these United States; it is possibly the highest tariff in our history; it has effectually stopped the wholesale importation of foreign goods that were threatening disaster to the cotton manufacturers of this country when the European war started. The cotton manufacturers have not received any large war orders, but war orders for other materials needed for the armies have so stimulated all lines of business that the purchasing powers of our domestic markets have been increased to such a degree that they are now and have been for some months past readily taking the full output of all our spindles and looms.

Thoughtful men, recalling demoralized conditions in the summer of 1914, cannot refrain from looking ahead with anxiety. Peace, eventually, is bound to come in Europe. When it does come ante-bellum conditions will recur with aggravated symptoms. The United States will be the best world market to sell in, the worst to buy from. Belligerent nations will devote unusual energies to the restoration of industry. Private capital will, as never before, enjoy the fostering care of government. Only in this land does the individualistic system of business prevail. In Europe a new socialized democracy has taken complete charge of manufacturing, mining and transportation through the collective principle. This departure was brought about by the stern necessities of war. The necessities of finance will continue then until commerce and credit have been rehabilitated. Some say the old order will never be restored. In the fierce competition that is certain to follow, it may well be doubted if our system can hold out. Assuredly trouble is ahead for us unless capital in America is treated with greater intelligence by the Government.

Mills which produce colored goods only have not had an easy time in providing a supply of dyestuff, and the situation regarding dyestuff supplies is steadily growing more difficult. Many colors are impossible to obtain, and lines of goods dependent upon these special colors have been withdrawn from the markets. The obtainable dyes, with the exception of the small quantities now being manufactured in this country, are the accumulated German dyes that have been collected by speculators from every available source and country on the globe, and are being offered to manufacturers at about 1000 per cent. increase in prices that were current before the war, with the additions of adulterants that reduce their actual value to not over 30 per cent. of their original value.

There is a bill before Congress known as the Hill bill, H. R. 702, which is intended to protect the dyestuff industry, but it has not yet been reported out of the Committee of Ways and Means. There seems to be an opinion prevalent that it will not be reported out, but will be included in a "general bill" for some protection, viz., a duty on dyestuff sufficient to enable American manufacturers to compete with German dyestuff industry when the war is ended, but it appears as if the war will be over before Congress decides upon any line of action. In the meantime, we see articles similar to the following: Textile World Journal, February 21: "Exporters Compelled to Turn Down Orders." "Many Inquiries Come to Nothing Through Lack of Dyestuffs," etc., which emphasize most emphatically the need of a non-partisan tariff board to prepare the necessary data so that Congress could act quickly and advisedly in an emergency, the present dyestuff situation being a fair example.

The Keating-Owen Child Labor bill has recently

passed the House, and is now pending in the Senate. It is the opinion of many who have visited Washington during the hearings of this bill that it will pass. You have all no doubt familiarized yourselves with the contents of this bill, so I will only mention, in passing, that the main objection to the bill is that it deprives the States of the right to regulate their internal affairs and places Federal inspectors in all States to regulate the hours and at what age people shall be allowed to work in certain occupations. It has some exceptions, however; it does not afford any relief to the 5000 children between the ages of 7 and 15 years employed for 12 hours each day in the sugar-beet fields of Colorado, but we understand that some of the good people of Colorado are trying to make the working conditions, hours, etc., better for these children under the age of 10 years.

The press in editorials and cartoons has the habit of representing manufacturers as the consistent enemies of any and all legislation designed, though oftentimes unwisely, to ameliorate working conditions among employees. The truth is that the men at the textile helm have done more in this direction than legislation ever has or can do. These men do not become barbarians or slave drivers, losing their sense of justice and sympathy and kindness when they go on the salary roll of a cotton mill. In all of these elements that go to make up the well-balanced character we will not dodge comparison with the folks who, more than ourselves, not only inform the left hand what the right hand doeth, but also stand upon legislative housetops to inform all other hands.

It is not proper for me to violate this injunction of the Good Book. It would be immodest, too, to here refer to our welfare work. There are no unions in Southern cotton mills. This is mainly because labor is too contented. Let that record speak for itself.

The cotton situation seems to be a question of the ability of the holders of cotton to carry the surplus until such time as the world will need it. From present figures on consumption and export, it would appear that the carry-over into the next crop will be about 3,000,000 bales American. To expect the countries now at war to buy and store surplus cotton at prices now quoted in those markets is to expect the impossible. The surplus must be financed by the people now holding, and under these conditions I do not expect much change in the present prices unless the acreage should be very materially decreased, which I do not believe will be the case, or very unfavorable growing conditions during the early months for the new crop, which is possible. From present reports it would seem that an increase in cotton acreage will be the rule.

The idea of marketing cotton slowly made much headway during the fall of 1915. To a point never before witnessed, except when a virtual blockade existed the year before, cotton was warehoused and held at interior points by producer and country merchant. This course was encouraged by certain Government officials who held out the assurance of high prices after Christmas. Performances did not square with promise. The promise should never have been made. It ignored the true principle behind the plan. Cotton should be marketed slowly to establish the price the year around, to better the price of the distressed cotton that must go to market in the fall. Heretofore May prices have been generally higher than November; the differences in available supplies going to market determined this. It resulted in loss to the producers. But if there is a substantial part of the crop carried by the producers until spring the reason for the usual spring rise ceases to exist, so a more uniform succession of prices will be quoted throughout the entire season. Opinion is widespread that we manufacturers are opposed to marketing cotton slowly. This is a mistaken opinion. It has, on the contrary, so many advantages, no less to ourselves than to the farmer, that we should and do give it our hearty approval.

Open price competition was quite freely discussed at

our Memphis meeting last year. As a result of those discussions a get-together meeting was held by the National Council in New York, at which meeting many selling houses were represented. The meeting was most cordial and informal. Open price competition was the theme of the evening, and some very interesting statements in support of open prices were made.

This meeting appointed committees to work out plans for trying out the open price idea in the sale of cotton goods. The obstacles to be met and overcome are many and various, but the hope of final success seemed to inspire all present with the belief that object sought would finally be attained.

Naval Stores Trade Adjusted to War Conditions.

Savannah, Ga., April 4.—[Special.]—The fiscal year in the naval stores business of Savannah, the leading naval stores port of the United States, which ended March 31, was a successful one as a whole, according to local authorities. The prices have been buoyed up by curtailed production, which step was made necessary by the closing of the most fruitful markets by the European war. After two years, however, the producers have adjusted themselves to the changed condition, as the report of the fiscal year of 1915 in the port of Savannah will show.

Of the situation J. A. G. Carson, one of the leading local naval stores operators, says:

"The most of the naval stores handled through this port are from South Carolina, Georgia and Alabama, and there is still a good supply to be had from those States.

"When the European war started Savannah was deprived of the chief market by the blockades. Germany and Austria, for seven years prior to the war, bought through the port of Savannah 155,000 barrels of turpentine and 600,000 barrels of rosin annually, all of which trade was cut off."

New Zinc and Lead Records.

The production of zinc ore (including calamine) in the Joplin zinc and lead district during the first quarter of the current year has been 168,669,204 pounds, which sold for \$8,491,708, according to the review of the Lyon Investment Co. of Joplin, Mo. During the corresponding period of 1915 the output amounted to 125,693,811 pounds, which sold for \$3,636,155, thus showing an increase for the quarter just ended of about 34 per cent. in production and 133 per cent. in value.

The lead output for the past three months has been 25,755,574 pounds, which sold for \$1,060,735, as compared with a production of 18,840,200 pounds, that sold for \$443,303, during the corresponding period of last year, an increase of 37 per cent. in tonnage and 147 per cent. in value.

At the present rate of production the value of this year's output of zinc and lead ores in the Joplin district will exceed \$40,000,000 as compared with last year's record-breaking output of more than \$26,000,000. During the past month lead ore reached the record price of \$100 a ton.

More than \$1,000,000 worth of properties have changed hands during the past 30 days, and deals are now pending which involve more than double that amount.

Panama Canal Will Probably Be Reopened April 15.

The conditions in Gaillard Cut are such as to justify a prediction, says the Canal Record, that the canal can be reopened to traffic on April 15 for ships drawing up to 30 feet. It is the expectation of the engineers that temporary delays will probably occur from time to time after April 15, during which the dredges will have to have uninterrupted possession of the right of way in maintaining the channel and completing it to full width and depth.

In order that the work may proceed to best advantage, unhindered, the canal will decline to pass vessels through the canal before April 15.

*Address of Scott Maxwell, president, at annual meeting of American Cotton Manufacturers' Association, Atlanta, Ga., April 4 and 5, 1916.

The Potter Palmer Operations in West Florida

[Editorial Correspondence Manufacturers Record.]

When a fortune of \$50,000,000 to \$100,000,000, controlled largely by a woman of world travel and executive ability, with exquisite taste in landscape gardening and with a sense of the eternal fitness of things, becomes united to a region which, if not the original Garden of Eden, would in climate, in superb location upon a wonderfully beautiful body of water and in luxuriant, almost tropical, productivity match all the conditions needed for that first home of our forebears, we may naturally look for the outcome of such a union to be at least a good rival to that first and doubtless most beautiful of all earthly homes.

And, reader, did it ever occur to you that the human mind has never conceived of the Garden of Eden being in a cold, ice-bound blizzard-swept region? No daring skeptic has ever presumed to locate it in any other than a land of summer warmth and sunshine and semi-tropical luxuriance. It was of the "sheltering palms" that the Psalmist sang, and who ever saw a sheltering palm in a snow-covered land? Someone irreverently replies that the amount of clothing in use demanded a warm climate for Adam and Eve, but the answer to this is that the Garden of Eden was doubtless located in a warm region because the Allwise Ruler knew that summer warmth was for man infinitely preferable to winter snow and ice.

Three years ago the writer told of the purchase by Mrs. Potter Palmer of Chicago and members of her family of over 100,000 acres of land on the West Coast of Florida which had just been effected, and gave some facts about her proposed work and the tremendous influence it was destined to have upon that portion of the West Coast stretching from Tampa to Venice.

It is the Palmer fortune, variously estimated at from \$50,000,000 to \$100,000,000, under the control of Mrs. Potter Palmer, one of the social and business leaders of America, and of members of her family as co-trustees with her, and a tract of Florida land jutting out into Sarasota Bay and looking across a narrow peninsula to the blue waters of the Gulf of Mexico, which have been united. On this tract of some 2000 acres, out of the 100,000 acres originally purchased, where nature has run riot with her work as though determined to show what an endless variety of tree and flower and shrub she can produce, backed by orange groves whose blossoms fill the air with perfume and whose fruit adds a golden glow to the scene, Mrs. Palmer is making an environment for a home which for unique beauty, from the glory of the rose to the stately grandeur of the towering sheltering palm, probably has no superior, climate and all other things considered, anywhere on earth.

This land, fronting the bay, whose waves show the deep blue seen only in Southern waters, indented here and there, so that the shore line rambles from point to point as though Mother Nature, enamored of the spot, sought to stretch the shore out on and on to get the beauty of the curve in place of the harshness of the straight line, has been set apart for this experiment of Mrs. Palmer's. Fortunately, Mrs. Palmer has had the rare good sense to supplement, not supplant, Nature. Through the luxuriant growth of flowering trees and shrubs she has cut rustic roads and walks where over-arching branches give restful ease-inviting shade, where long vistas open up distant scenes or furnish a glimpse as "through the heart of an emerald" of

the many tiny islands like miniatures painted by the hand of the Master Artist on the quiet, restful waters of the bay.

No formal gardening, no stilted plan mars the beauty of the scene. Mrs. Palmer has been her own landscape gardener and engineer. Here is a little rivulet crossed by an artistic bridge, there are ferns that from their size would seem to have been growing since Eve tended

nous ones to test their fitness for this climate and soil. There is the prosaic but appetite-tempting vegetable garden, with its abundant growth of table supplies; there are the richly loaded orange and grapefruit trees, with occasional lemon and lime trees. And over all this plowing and hoeing and planting and gathering Mrs. Palmer is the presiding genius. She knows these flowers and trees, and she does not leave them to the thoughtless care of others. She mothers them as though they were her own children.

Imagine if you can the wonder and amaze of any of Mrs. Palmer's friends who have never seen her place, when, after leaving the death-dealing darts of blasting blizzards in the West and landing at the nearest station, they motor 10 or 12 miles through pine forests, over imaginary roads made up mainly of deep sand, sharp curves, unseen but ever-felt ruts and stumps, all soon to give place to a modern thoroughly built highway, and then suddenly enter upon such a scene of entrancing beauty as they reach the house and rest for a few moments to catch their breath on a

wide-sweeping porch in a region where for hundreds of miles the only ice ever seen is that made by man and look through the glory of flowers and shrubs and palms to the beautiful bay just beyond.

These visitors must indeed feel that they have really departed this life and been transported to that Better Land and there found that their friends had preceded them.

I started, however, not so much to write of Mrs. Palmer's creative work in beautifying the grounds of her home—I had almost said her winter home, but she is so charmed with the place that she spends much of the summer there—as to write about the commercial or business side of the proposition which she and her associates are working out.

Impressed some years ago with the fact that Florida is far superior to California, and is to be the nation's playground, winter health and pleasure resort and the producer of its citrus fruits and early vegetables, Mrs. Palmer and the Potter Palmer estate began the buying of large areas of land, first in the Tampa section and later on in the Sarasota-Venice district bordering on Sarasota Bay and the Gulf of Mexico. These purchases were made at a time when the railroad to Sarasota was, as I wired some of the officials three years ago, "the rottenest piece of railroad over which I had ever traveled, and any country which could live under such a line must have unusual advantages." Despite these adverse conditions, and tempted by the charm of the climate and the possibilities of that section, Mrs. Palmer and members of her family began for themselves and for the Potter Palmer estate buying additional tracts until she and the estate and the various members of her family own between 150,000 and 200,000 acres of this Florida land. Quietly, but with well-thought-out plans for the future, these interests have been carrying forward their work of development. They have been laying out roads, opening up property to settlement, organizing their office and field forces and making known widely through the North and West the proposition which they are prepared to make to people whom they want to attract to this region. The extent of their operations is indicated by the fact that on the morning of my arrival at their office the mail brought them 600 letters



LOOKING OUT ON SARASOTA BAY, DOTTED BY SMALL ISLANDS. ONE OF THE MOST BEAUTIFUL VIEWS FROM MRS. PALMER'S GARDEN, BUT THERE ARE SO MANY BEAUTIFUL ONES THAT SUPERLATIVES BECOME EXHAUSTED.

them; here is the rose garden, there is the stately walk; here is the cosy resting spot, where you may rest and "invite your soul;" here is a lawn that proves that a perfect lawn can be made in Florida, there are the myriad varieties of trees and shrubs, native and from other sections and other lands, for Mrs. Palmer has searched the world over for other varieties than indige-



A WINDING WALK OF EVER-CHANGING BEAUTY.

of inquiry from Northern and Western and Canadian inquirers seeking information about these lands. Some five or six clerks were needed to handle the mail, and 12 stenographers were busy replying to these letters. While this was said to be the largest mail that had ever been received in one day up to that time, I am informed that it is steadily increasing from day to day. The company does not encourage the coming of people who are without means sufficient to build a house and get started.

Though 95 years of age, looking, however, less than 65, Mrs. Palmer's father, Mr. H. H. Honore of Chicago, spends much of his time in this section actively engaged in buying and trading in land, often making time contracts with the eagerness of a young man full of the vigor of youth. In clearness of vision, in mental activity, in enthusiastic optimism and in activity in real estate operations Mr. Honore shows no indication whatever of his years. His looks and his activity belie the records of his birth.

Let no one, however, imagine for a moment that in visiting this section or examining the property offered for sale they will find a finished country rounded out in all the completeness of long-settled regions. Mrs. Palmer and her associates are truly pioneers, and nothing but that daring spirit of the pioneer, which has carried the Anglo-Saxon into all of the out-of-the-way places of the earth, inspired them to come into such a new and undeveloped country and begin the pioneering work that had to be done. On the other hand, let no one imagine that this is a wholly undeveloped country. It is raw in spots, but there are some splendid roads, while here and there are to be found roads composed mainly of sand and sharp turns and roots. It is a skillful driver who can pilot an automobile along the bad sand roads without hitting a root or a stump every few yards. But this section is preparing to build many miles of good roads, just as all Florida has been doing with amazing activity during the last two years.

Along the bay front, for many miles to the north of Mrs. Palmer's home, are the homes of many well-known and of some very rich people of the North and West who have sought this country, despite the former condition of its one railroad, because of its splendid climate, the beauty of the land and the attractions of its hunting and its fishing. Fortunately, the Seaboard Air Line, whether due to the vigorous criticisms made a few years ago or to the good judgment of its officers, has relaid its track to the Sarasota section with 80-pound rails, well ballasted. Three years ago, as I reported to some of its officials, this stretch of road was the most remarkable piece of engineering work I had ever seen, in that it was so constructed that though one always felt in danger of the coaches turning over, they never did, because they were so well balanced that when one car was turning to the right the next one was always turning to the left, and in this way the balance of power was maintained and the train was

kept on the track. Any country which could attract the hundreds of people who before the improvement of the road had settled all the way through Bradentown, Palmetto and Sarasota on to Venice must indeed have unusual advantages and attractions, for none but those who were willing to take some risks as to life and limb would have been willing to make the experiment. The

in this territory. On this Bradentown branch of 100 miles the Seaboard now gets about 5000 of the 12,000 cars of perishable freight, which always pays the highest rate, it annually handles in Florida, and the future will show very much larger figures.

The Palmer interests are reported as continuing to



A ROADWAY BORDERED BY A WIDE VARIETY OF TREES AND FLOWERING SHRUBS.

improvement in the road during the last three years is indeed great, and the track is now laid with heavy rails and is a Pennsylvania line as compared with what it was three years ago. There is still, however, something to be done by the Seaboard Line from Turkey Creek, the junction of this branch with the main line, down to Venice to give this section the facilities to which it is entitled, but so rapidly has the traffic increased and so great are the potentialities of this region that it may be counted upon with certainty that the Seaboard people will be wise enough to give the amplest provision to encourage traffic, both passenger and freight.

Especially, however, are better facilities and better depots needed for passenger traffic. Turkey Creek, as a junction point, is a delusion and a snare to those who arrive at that point and have to wait for connecting trains, often in the night, and sometimes when the passengers happen to be unattended women and the rain happens to be coming down, their lot is not a desirable one. It is true that the Seaboard, as other roads, has been hampered by the lack of money, but there are some places, such as this section, where the business is so large and the profit of handling it so great as compared with other sections and other traffic that it is only fair that a considerable proportion of the profit derived from this territory should be invested

make land purchases, and while they are making heavy sales, they are not getting out of the country, but constantly getting deeper into it, as they buy more than they sell. They have many large plans under way not yet ready for announcement, which indicate that the opportunity and the capital and the brain power have met in a trinity which will bring forth great results for this immediate section and largely benefit the whole West Coast, and what benefits one part of Florida necessarily inures to the benefit of the whole State.

R. H. E.

The New South.

[Baltimore (Md.) Star.]

THE MANUFACTURERS RECORD, the Baltimore publication which so helpfully specializes on Southern progress interest, is able to array statistics which show that the South is coming again to its early history balance of industrial and agricultural activities plus the modern times large scale of operations which put the section not only abreast of the times, but which in some lines mark leadership. One of the most marked indications of business health in the proportioning of interests and activities are the figures which show that last year cotton, once pre-eminent, constituted only one-fifth of the South's total agricultural product. This total is valued at the vast sum of \$3,600,000,000. Of this, cotton was only \$750,000,000. In the year 1915, of the total gain over 1914 in the United States production of agricultural supplies, 60 per cent. was contributed by the South.

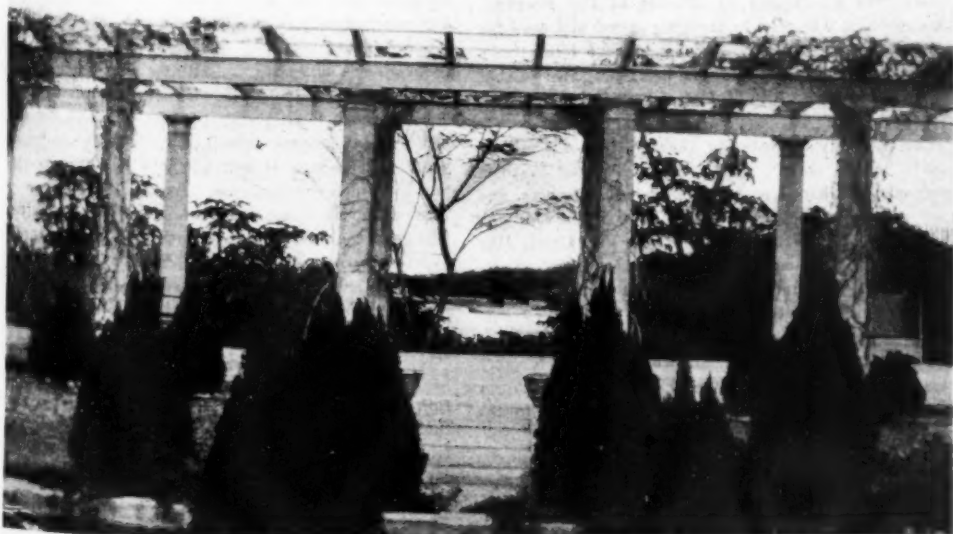
Because of Baltimore's well-known relationship to Southern trade, all this has direct bearing on the coming further development of Baltimore's position as one of the pre-eminent economic centers of the country.

Should Be Widely Distributed.

F. H. KAISER, Monarch Refillable Fuse Co., Inc., Buffalo, N. Y.

Your book, "National Insuredness Through National Preparedness," is the best argument outlining national preparedness that we have ever read, and believe that it should be purchased by the Government and distributed throughout the United States.

Fundamental arguments of this nature will do more to bring about common sense preparedness than any other known system.



THE ONLY FORMAL GARDENING IN MRS. PALMER'S GROUNDS. THIS PERGOLA, BUILT ON A KNOLL SOME DISTANCE FROM THE RESIDENCE, AFFORDS A DELIGHTFUL RESTING SPOT FROM WHICH TO VIEW THE BAY.

PRICE OF STEEL RAILS.

Steel Corporation Subsidiaries to Maintain Present Rail Prices Till May 1 for Deliveries Within Twelve Months.

[Special Dispatch Manufacturers Record.]

New York, April 5.

It was given out at the office of Judge E. H. Gary, chairman of the board, United States Steel Corporation, here today that the subsidiary companies of the United States Steel Corporation which manufacture rails have decided to maintain the present prices until May 1, 1916, as to rails sold for delivery up to May 1, 1917, but will make no commitments beyond that date.

\$2,000,000 Steel Plant Reported.

Walter Sachs of Petersburg, Va., is reported as having announced that Richmond capitalists and interests connected with the Norfolk & Western Railway will build a \$2,000,000 steel plant at Hopewell. No further details have been made public.

\$800,000 WAREHOUSE AND COMPRESS PLANT.

Increasing Savannah Cotton-Handling Facilities.

Present facilities for handling cotton at Savannah will be extensively increased by the plant which the Savannah Warehouse & Compress Co., recently incorporated, will build. Approximately \$800,000 will be the cost of the first unit of this warehousing and compressing plant, the contract for which has been awarded to Chandler & Campbell of Chattanooga, who will also furnish the necessary boilers, tanks, etc.

Describing the new facilities, a correspondent of the MANUFACTURERS RECORD sends the following details:

The company has a site of 1100 acres, and its buildings will cover 72 acres. Both the warehouse and compress buildings will be of slow-burning mill construction, including brick walls with concrete floors and platforms and tar-gravel roofs. The warehouse will contain 50 compartments 90x75 feet each and 50 compartments 100x90 feet each, the total capacity being 150,000 bales of cotton. The compress will be equipped with three Webb compresses, two being of high density, located under the sheds, which will cover 300,000 square feet of floor space and have a capacity of 30,000 bales of cotton. A modern sprinkler system will be installed to perfect the fire prevention construction.

Architect and engineer, J. E. Sirrine, Greenville, S. C., has prepared plans and specifications for the buildings, and through him and G. A. Gordon, chairman of the new company's organization committee, the contract for construction was awarded, as well as the contract for building a wharf on the river front. This wharf contract was awarded to Dave Power of Savannah. The site of the plant is on the Savannah River, four miles west of Savannah, four-fifths of a mile of the property having a river frontage besides connecting with the six leading railway systems running into Savannah. These railways are the Atlantic Coast Line, the Seaboard, the Southern, the Central of Georgia, the Savannah & Northwestern and the Savannah & Statesboro.

The construction and equipment now contracted for comprises the first unit of the plant as designed, ultimate plans contemplating three additional units (to be built as required by the increase of cotton shipments at Savannah) in the future. About \$2,000,000 is the estimated cost of the four units as ultimately planned. It is proposed that the new facilities will aid in the development of Savannah's cotton commerce and enable the city to regain its position of several years ago as a cotton port.

Besides Mr. Gordon, the new company's reorganization committee includes the leading Savannah cotton handlers: E. W. Rosenthal, president of E. W. Rosenthal & Co.; Carl Espey, president of Espey Cotton Co.; Chas. G. Bell, of Butler, Stevens & Bell; M. A.

O'Byrne, president of John Flannery Company; J. K. Livingston, president of J. K. Livingston Company; Beirne Gordon, of Gordon & Hilton.

SULPHURIC ACID FROM LOUISIANA SULPHUR.

Davison Chemical Works Greatly Increasing Plant Capacity—Fostering Fertilizer Industry Adjoining Works.

On account of great expansion in business, the Davison Chemical Co. is making large additions to its already mammoth plant on the deep-water channel at Curtis Bay. Since the beginning of the war the output of the plant has more than trebled. The price of sulphuric acid, which is the principal product, has increased from 350 to 500 per cent. in price because of the demand for its use in the manufacture of munitions of war. The number of men employed at the plant has increased from 300 to over 1000. Work at the plant goes on day and night, the men working in three shifts.

Fearful lest the supply of pyrites ore from Spain be cut off because of the scarcity of ships, the company is installing burners for making sulphuric acid from Southern brimstone rock or sulphur. A large addition, of concrete, steel and galvanized iron construction, is being erected beside the present plant. In it will be placed 20 burners for the reduction of the acid from brimstone. When completed the plant will have a total of 40 burners. Four of the new burners have been placed in operation.

Three large cargoes of brimstone rock have already been received from Louisiana and are being stored on the grounds for future use. The company intends to get as large a supply of brimstone on hand as is possible, and thus avert a shutdown in case the entire supply of pyrites ore is suddenly cut off. The new plant will have a capacity of 50,000 tons of acid a year, and the output of the company's entire plant will be from 300,000 to 350,000 tons.

Besides the addition to the acid works, a large fertilizer factory is being erected between the present plant and that of the Swift Fertilizer Co. This plant will manufacture acid phosphate, and will have an output of 300,000 tons yearly. For the most part the acid phosphate will be sold to consumers in or near Baltimore. Formerly the company sold phosphate alone to the fertilizer manufacturers, but henceforth it will be able to furnish them with acid phosphate.

The work now being done will require the expenditure of about \$500,000. Construction work is being done under the direction of the company's engineers. The plant is the largest of its kind in the country, and already manufactures 17 per cent. of the entire phosphate output.

More land is owned by this company than by any other one company in the Curtis Bay section. One thousand acres, having a deep-water front of 2 1/2 miles on Curtis Creek, will shortly be developed as factory sites by the company. For a number of years a dredge was maintained by officials of the company. This machine was used in dredging gravel and sand for use in construction work and for sale to local trade. At the same time the water was being deepened so that now there is from 25 to 30 feet of water directly up to the shore line.

The company is fostering the location of fertilizer plants on the tract. The land will be sold to them more cheaply than it could be purchased elsewhere, and they will be given the advantage of excellent shipping facilities, both by rail and water, for the Curtis Bay Railroad is extending its lines to Hawkins Point. Negotiations are now under way with two fertilizer plants for location on the tract.

The second submarine cable for carrying 13,000 volts in the vicinity of Baltimore has been completed to carry current of the Consolidated Gas, Electric Light & Power Co. from its transformer station at Brooklyn to the plant.

A line nearly five miles long was constructed to the plant. This line passes through the large tract owned by the chemical company. One mile of submarine cable weighing over 130 tons was laid under Cabin Branch Creek and Curtis Creek, branches of the Patapsco River.

Recently a deal was closed with the electric company whereby that company purchased all the chemical com-

pany's equipment in boiler-house and power plant and agreed to sell the chemical company current at a lower price than they could manufacture it. The equipment of the power plant will not be used again by the electric company, but will be wrecked. Several large transformers for stepping down the voltage to the required values have been installed in the power plant. The current was turned on for the first time during the week of March 5.

BETHLEHEM STEEL BUYS BALTIMORE PLANT.

\$1,500,000 Enterprise to Be Increased to \$4,500,000.

Wiring the MANUFACTURERS RECORD that it will be some time before any definite plan can be announced, E. G. Grace, president of the Bethlehem Steel Corporation, Bethlehem, Pa., advises that his company has purchased the Baltimore Sheet & Tinplate Co. and will build a plant about three times larger than was at first proposed. This Baltimore company was organized recently with plans for expending \$1,500,000, and it will now be increased to probably \$4,500,000, enabling it to provide facilities for an annual output of 3,000,000 base boxes of tinplate of 100 pounds each, instead of the 1,000,000 originally proposed. A plant site of 100 acres in the suburbs of Baltimore had been secured and preliminary work had begun, but the Bethlehem Steel Corporation may change the location to Sparrows Point to accompany its \$15,000,000 to \$20,000,000 extensions proposed for the Maryland Steel Co., which it recently purchased.

The new sheet and tinplate plant will probably have 36 hot mills with intermediate and finishing departments, facilities for cold rolling, pickling, annealing, tinning, etc., driven by 9000 to 10,000 electrical horsepower, its products to include black sheet for automobiles and polished blue sheets for stoves.

The acquisition of this Baltimore company by the Bethlehem Steel Corporation is but another indication of the recognition of Baltimore's advantages as a location for the most important class of manufacturing establishments, every kind of raw material being available, labor being readily obtainable and shipping facilities by rail and water being all that can be afforded by modern transportation.

Two Additional \$1,000,000 Ships Contracted for by Newport News Company.

Two more big contracts have been secured by the Newport News Shipbuilding & Drydock Co., Newport News, Va., these orders calling for the construction of two big oil-tankers costing about \$1,000,000 each. The MANUFACTURERS RECORD is advised that these new contracts, added to the many others of the Newport News plant announced during the past few months, provide the company with sufficient work for its capacity during the next two years. It is stated that contracts now on file give this yard precedence over any other American plant in the amount of merchant tonnage under contract, and it is working its largest force of men since it was building four battleships at one time. Present capacity enables the yards to launch one ship each month, and it is probable that improvements and enlargements will be arranged for during the year. The payroll is now nearly \$100,000 each week, and 7340 men are employed. Each of the two new oil-tank steamers is for the Standard Oil Co., and each will be of the following specifications: Length over all, 475 feet; beam, 60 feet; depth, 36 feet 2 inches; dead weight, 11,300 tons at 26 feet 2-inch draft; speed, 10 1/2 knots; quadruple expansion engines; Scotch boilers.

The MANUFACTURERS RECORD of January 6 presented several photographic views of ships being built by the Newport News Company, and completely detailed the contracts and the facilities of this modern Southern shipyard. The aggregate value of the contracts now booked is approximately \$30,000,000, and includes 22 vessels, 10 being tankers, 9 being freighters and 2 being battleships for the United States Navy. The 22 vessels referred to range in tonnage from 4000 to 11,300, excepting the two battleships (the Pennsylvania and the Mississippi), which will have a tonnage of 31,400 and 32,000 at normal displacement.

Nashville's Plans for Rebuilding

WHOLEHEARTED, INSPIRING MANNER IN WHICH CATASTROPHE HAS BEEN MET—LARGE AMOUNT OF REBUILDING PREVIOUSLY PLANNED.

[Special Correspondence Manufacturers Record.]

Nashville, Tenn., April 1.

While the fire that swept over a large area in Nashville on March 22, rendering thousands homeless and wiping out property aggregating nearly \$1,500,000 in value, is primarily a source of regret, yet there was one phase that is not less than inspiring. This is the whole-hearted, almost heroic manner, in which Nashville's citizenry and business interests responded to the call for the aid of those affected by the catastrophe.

As soon as the extent of the conflagration was foreseen, General Manager Everett Bawdel of the Cumberland Telephone & Telegraph Co. instructed every available employe at the switchboard to ask for delivery wagons and trucks to aid the residents in the path of the flames to remove their household effects. This, with the energetic response of hundreds of manufacturing, wholesale and retail concerns, saved thousands of dollars for those who could ill-afford to bear the loss and relieved in large part great inconvenience and suffering. Many large companies retained no trucks for their own use, placing all of them in use in the endangered district.

The fire was not under control before plans were under way for the immediate relief of those who were driven from their homes. The Commercial Club appointed a relief committee, with Dr. J. Paul Harvill as chairman, and the Business Men's Club and practically every other business organization joined in this work. Every case of destitution resulting from the fire was relieved in a short time and a loan fund was ready for the wage-earners who had no funds at hand but were capable, with this help, of caring for themselves.

The owners of the Duncan Hotel telegraphed to the local manager within a few hours after the fire, instructing him to throw open its doors without charge. The Real Estate Exchange responded in this emergency by placing at the disposal of the relief committee a list of vacant houses, and many of these were loaned without question of payment for temporary use. The local utility companies announced that they would make installations without the usual formalities, thus restoring to those who were forced to seek new homes hurriedly the necessary convenience without question.

A number of furniture dealers offered to receipt in full all instalment bills against sufferers who owed them for furniture bought before the fire. They volunteered also to sell whatever furniture was needed without the usual initial payment and to take back furniture bought at this time if it was found unsatisfactory later.

The work of the fire insurance companies was a big factor in relieving the distress of those who lost their property in the fire. Every claim was given the most prompt attention, some being paid within 24 hours. The companies involved formed a central committee to facilitate the adjustment of claims. By the Saturday following the full amount of insurance to be paid out was known and the companies were ready to meet all claims. Their report showed a loss of \$1,394,415, on which the insurance was \$836,650. This was distributed among more than 60 companies, so that the individual burden was slight.

As with so many other catastrophes of this nature, the East Nashville fire may eventually prove a benefit. The Board of Commissioners are considering several plans which were suggested by the residents of that section for its rehabilitation. One of them is the establishment of a large interior park in its midst. This could be done at little more than the cost of the ground. The Fourth and First National Bank has offered to take notes of \$50,000 for the building of this park.

It has also been suggested that Woodland street, the principal street of the section, be made a boulevard, extending from the end of the bridge connecting East Nashville with the main part of the city to Shelby Park. The additional land, it is expected, will be donated. This improvement would cost several hundred thousand dollars, to be divided between the city and owners of abutting property. Accompanying this is the proposition of widening the approach to the bridge, which is considered a desirable measure.

The Board of Education will rebuild Warner school, the only question being whether it shall be on the same site or in another location. The cost will be about \$100,000, and a fireproof building to accommodate comfortably more than 1000 pupils will be erected. St. Columbia's Church is now having plans prepared by Harry J. Frahn for a new building to cost about \$20,000. The Woodland Street Christian Church, of which the Rev. J. E. Stuart is pastor, will also build a larger structure than that which burned. The Little Sisters of the Poor, who are now housed at the Knights of Columbus clubhouse, will erect a large building.

While the danger of the recurrence of such a disaster cannot be entirely eliminated, it will be made somewhat remote by the requirements of better construction. The commissioners have passed an ordinance which will prevent any flimsy rebuilding. The area burned is made part of the second fire zone, in which no building of more hazardous construction than brick veneer or stucco will be permitted, while all roofs must be of fireproof material. This will prevent rebuilding of the highly inflammable wooden buildings for negroes which covered a part of the area. There is already a rumor that a four-story apartment-house will be erected in the middle of the burned area, and it is expected that a number of such buildings will be erected. While a number of very handsome residences were destroyed, and it is not probable that they will be rebuilt on the same scale, there is no doubt that within a few years the value of property in this district will be considerably higher than that previous to the fire.

In addition to the building activity that will be involved in the reconstruction of the burnt district, there was a considerable amount of new construction contemplated and under way in Nashville previous to the fire. The outlook, therefore, is that Nashville will have a period of very great activity in building for some time to come.

Among the features of construction at the present time is the new home of the Fourth and First National Bank. This will be a five-story reinforced concrete building, with an elaborate cut-stone exterior, for which the Foster & Creighton Company has the general contract. The same concern is also working on a large dormitory of 100 rooms for Ward-Belmont College, which will add to the already large equipment of that well-known college for girls.

The Tennessee Extract Co. is considering the question of erecting a by-product plant to dispose of the wood from which tanning acids are extracted. The total value of the plant will be more than \$500,000.

The Board of Education has erected six new school buildings with the proceeds of a bond issue. These are now under way, and a seventh building, the largest of the additions to the school plant, will be started in a few weeks. This is the addition to the high school, which will cost about \$200,000. It will be of reinforced concrete, with ashlar stone exterior.

St. Thomas' Hospital is erecting a large addition, doubling present capacity, to cost nearly \$200,000. The Galloway Memorial Hospital plans to complete its buildings this year. About \$100,000 will be required.

The Cumberland Telephone & Telegraph Co. is now having plans prepared at its Atlanta offices for a new structure to cost about \$200,000. The type of construction will be determined largely by the availability of materials. If possible, a reinforced concrete building will be erected.

The Commercial Club is having the Vanderbilt Law Building remodeled for its use at a cost of \$75,000. The competition for this building was limited to local firms, as the funds for this purpose were raised by an appeal to Nashville citizens.

Contracts will be let shortly for the construction of the addition to the postoffice, to cost about \$300,000. Other proposed construction includes a number of apartment-houses. At present work aggregating more than \$250,000 is under way along this line.

There is a large amount of construction work to be done in Nashville outside of architectural work. The

city of Nashville, the N., C. & St. L. Railway and the Nashville Railway & Light Co. have signed a contract for the joint erection of a reinforced concrete viaduct, to cost about \$45,000, to replace the present steel structure over the railroad's tracks at the Charlotte pike. Plans for this were made by the railroad company, but the contract is to be let by the city. There has also been considerable discussion of the question of lengthening the Church-street viaduct nearly a block in each direction, and it is possible that this will be undertaken this year.

There are also 250,000 square yards of street paving remaining to be done under contracts already made. This includes a large amount of tarvia penetration, wood block, bitulithic, bitustone, granite and asphalt penetration streets. A part of this is now held up by litigation, but the greater part will be put through by the contractors as rapidly as possible. In a recent report on the street-paving situation in Nashville by auditors and engineers who are making a survey of the city's affairs, it was stated that Nashville must do a large amount of paving annually during the next 10 years. A large part of this will consist of bituminous covering of the present water-bound streets, which will serve well as foundation, but will not be able to withstand the wear of modern traffic.

The county will also do a large amount of road work with the workhouse gangs. In addition, plans are being made by Freeland & Klyce, consulting engineers of Nashville, for a new bridge at Hyde's Ferry, to replace the present structure. The county court was authorized by the Legislature to issue bonds of \$250,000. The plans are to be completed by the April term of the court, in order that the court may vote to issue the bonds and proceed with construction. This bridge connects the northeastern part of the county with the road to Clarksville and other towns in the northern end of the State.

The Board of Commissioners favors a \$250,000 bond issue for the building of wharf terminals as a means of developing river traffic. The Legislature is to be asked to authorize such an issue of bonds. It is planned to build concrete wharves and install loading equipment that will give the city the full advantage of river development. The fact that the Interstate Commerce Commission has held that water competition with railroads in making freight rates for Nashville is only potential, and not actual, has led to a strong demand for improved river facilities to make this competition actual.

A building that has attracted much local interest is the doctors' office building, a structure that was started more than a year ago, but work on which was discontinued for a time. The contract was turned over to the Southern Ferro-Concrete Co. and the excavation was completed by the M. A. Lightman Company. In this 8000 cubic yards of rock were blasted out. The Lightman Company also built the foundation and is now doing the concrete work. The steel work was done by the Nashville Bridge Co. It is a three-story building, constructed so that other stories may be added.

Farmers Produce Wealth, But Few Retain It.

[Fitzgerald (Ga.) Leader-Enterprise and Press.]

According to information gathered by the MANUFACTURERS RECORD of Baltimore, the value of the farm product of Georgia in 1915 was \$233,500,000, or nearly \$10,000,000 more than in 1909. Despite the blow given the South by the war, the aggregate amounts of the value of the products of the farm increased during this period. More foodstuff has been raised in Georgia than ever before, and the entire South, according to these figures, has prospered in like proportion. The need of better marketing systems becomes more apparent when such tremendous wealth is considered. Individual efforts are of little help in the face of such large interests, and it becomes an issue of national importance to provide means and methods to secure the creators of this vast wealth a fair return for their efforts. Let Congress act and let the State legislative bodies awaken to the necessity for securing as a "first aid" a State warehouse system that will enable the producers to better protect themselves against the speculative elements that so largely enter into the marketing of the Southern money crop.

News and Views from Our Readers

Enviably Corn Production Record.

A. JEFFERS, Occaha, Va.

The importance of a more intensive tillage of the soil is gradually dawning upon the minds of a majority of the producers of soil products. The consuming millions are increasing at a steady rate, and a rapid rate, and the producing acres are not increasing in proportion; therefore it becomes very necessary to increase the productiveness of the soil.

In this the "corn club boys" are setting the pace in regard to this most important of the cereal crops, or one of the most important.

It is probable that Virginia, this year, carries off the prize for the greatest yield. It is possible that Virginia can claim the greatest yield and the smallest cost of production. The State will surely lead in one, if not both, of yield and cost.

A Norfolk county (Virginia) corn club lad, 14 years of age, Marius Malmgren by name, made a record of 204 bushels and 40 pounds of corn from one acre. The corn was weighed, and the acre was measured according to general instructions from the State and from the United States Agricultural Departments.

All the facts, figures and features are carefully and legally attested and certified.

And the best of it all is this: He made this large yield of corn at a cost, all told, of 11¼ cents per bushel. How he did it is thus briefly told:

Soil, a black sandy loam, 15 to 30 inches deep to clay subsoil.

Soja beans grown on the acre last summer, and rye, hairy vetch and rape grown last winter.

Land plowed April 1, 1915; corn planted May 14.

The corn was the famous "horsetooth" variety, rows 32 inches apart, hills 10 inches apart.

He used six cartloads of stable manure, 200 pounds acid phosphate and 100 pounds nitrate of soda. See cost in list of expenses.)

EXPENSES.	
Rent of land (one acre).....	\$5 00
Preparation of seed bed.....	2 95
Cost of seed.....	25
Cost to plant.....	15
Cost of stable manure.....	6 00
Cost of fertilizer.....	4 70
Cost of cultivation.....	1 70
Cost of gathering.....	3 00
Total cost.....	\$23 75
Value of the corn at market price at time of harvesting.....	\$188 70
Deducting expenses.....	23 75
Net profit.....	\$164 95

Two other members of the club exceeded 100 bushels, but this lad had the advantage of Dismal Swamp land, fast-walking horses and broad-gauged implements.

Thorough cultivation will quadruple the yield of Southern corn.

Incompleteness of Census Figures Pointed Out

SIDNEY S. RITTENBERG, Publicity Secretary Chamber of Commerce, Charleston, S. C.

We request your attention to the fact that the recently published manufacturing census of the United States is very unfair to many cities and altogether misleading in its treatment of them.

This census was restricted to manufacturing plants within city limits. Many communities have their most important manufacturing plants outside the corporate limits, and for most cities the census gives only a partial statement.

For cities where—often to the serious detriment of the community—limits have been greatly extended and large areas taken in, increases are shown in this census that may be only apparent increases. On the other hand, for other cities, like Charleston, where the limits are only three miles apart, whereas the metropolitan industrial district covers 10 miles or more, in spite of the fact that the number of plants lying just outside the corporate limits may have increased wonderfully, a decrease in manufacturing is shown by the census.

In the case of Charleston, recent rapid growth in the city and the establishment of excellent factory sites in suburban locations have combined to induce many large firms to move to places just outside the city limits.

Most of the lumber and fertilizer plants and a number of large factories of other kinds are outside the limits. A careful and painstaking census was made by the Charleston Chamber of Commerce in 1913. This census showed capital, \$22,769,562; annual products, \$16,726,121; persons engaged, 8917. (This did not include Charleston Navy-yard.) Compare with these figures those given by the census just published—capital, \$5,776,000; products, \$5,852,000; persons engaged, 3232.

Such a census is seriously injurious to a city from several viewpoints. Cities trying to bring in new industries or new steamship lines, for example, are put at a serious disadvantage when the concern in question goes to the United States census for information.

When the census was taken the Government was requested to take it, not by city limits, but by metropolitan industrial districts.

It is hoped that when the next manufacturing census is to be taken the commercial bodies will unite in insisting that the present misleading method be discontinued. To make the census fair and accurate would cost very little, if any, more than is now expended.

Riches Through Research.

W. N. BERKELEY, Annapolis, Md.

Some months ago Mr. A. D. Little, a very well-known technologist, in an address delivered in New Orleans (printed in your journal) presented what was virtually a bill of indictments against the people of the South for their failure to develop a great many of their latent resources. We must admit the justice of the charge.

At another time he said, indicating the proper procedure to follow in the development of industries of all kinds: "The very bedrock upon which industrial success must be built is an accurate knowledge of materials and methods." (Italics are mine.)

In the March issue of the Journal of the Franklin Institute, Prof. C. H. Herty (who has attained a world-wide reputation through his enormously valuable work in connection with the turpentine industry of the South, makes the following inquiry, of the greatest import to the manufacturers of the South: "Will the operator (in the turpentine industry) place himself in line with all other lines of modern industrial life which have realized, or are beginning to realize, that true progress in any industry must be based not on individual opinions or hereditary teachings, but upon scientific research and constant striving for greater efficiency?"

We have, then, in the address of Mr. Little and in the article of Professor Herty clear-cut statements as to how the industries of the South are to be developed to their maximum extent by basing this development on the bedrock of accurate knowledge of materials and methods, upon scientific research and a constant striving for greater efficiency.

The application of these principles to Southern agriculture has resulted in an enormous increase in the agricultural wealth of the South.

Is the Southern factory man less progressive than the Southern farmer?

Are the manufacturers of the South willing to continue to do the same old things in the same old way?

Your journal is doing magnificent work in calling the attention of the people of the South to its latent wealth. Will you not sound the slogan of "Riches Through Research?"

Raising Asparagus in South Carolina.

FRED W. HOFMANN, State Market Agent Clemson Agricultural College of South Carolina.

South Carolina offers splendid conditions for asparagus growing, the soil is ideally adapted for this crop, and it would be grown more extensively if we had younger and more enthusiastic growers. The trouble is that the younger men have left the older asparagus fields and now as a consequence the asparagus industry about Charleston and Mt. Pleasant has decreased and almost died out. Fortunately in the vicinity of Wil-

liston, Ridge Springs, Trenton and Elko we have a lot of hustling, enthusiastic young growers. They take interest in the proposition, and as a consequence have made it a success. We have been fortunate in organizing ourselves last August in what is known as the "South Carolina Green Asparagus Association." We have adopted California crates and grades. We have had some trouble heretofore in marketing our asparagus in an organized manner. We have now engaged the North American Fruit Exchange to look after the distribution of this commodity. We have with us a live young salesman who is a part of this exchange, and who will act as sales manager for our association.

If we succeed in holding our association together and continue to keep up the present enthusiasm we have every reason to believe that the asparagus industry will continue to be a profitable one.

Chillicothe Rapidly Expanding.

HARRY W. GRAHAM, Secretary Chillicothe Chamber of Commerce, Chillicothe, Mo.

We have projected and have now under contract something far over \$1,000,000 worth of improvements for the coming building season.

A \$100,000 automobile building is just being finished. The Federal building, \$130,000, is now under roof; five miles more of city paving will be built that we know of—now under contract—cost about \$230,000; a large sewer contract will be let soon. We have enlarged the municipal water and light plant since last year, making its total cost \$250,000; our gas company is now putting in six miles of pipe extensions, cost about \$25,000. We are now installing a \$100,000 gunstock factory, said to be the largest in the United States when completed. It will be running in about 30 days; five carloads of machinery now on the way; 5,000,000 feet of walnut logs are now contracted, and one-quarter of these are on the yards now. We are also negotiating for a \$100,000 tractor factory that we hope to have in operation by fall. We have now 40 factories in running operation, and are offering some splendid sites for more.

Chillicothe has 20 miles of paved streets, owns its \$150,000 water plant, its \$80,000 electric-light plant. Its streets are the best illuminated with white ways in the State. Its sewer system is second to none. It has just completed a \$60,000 high-school building and has six ward schools, all fully equipped. Its \$100,000 courthouse was erected in 1914.

A Question of Vital Importance.

H. P. SMITH, Vice-President Dixie Culvert & Metal Co., Atlanta, Ga.

The writer having had an opportunity of carefully going over your book, entitled "National Insuredness Through National Preparedness," takes this opportunity of complimenting you on the excellent manner in which this question, which is of such vital importance, has been brought to the attention of the American people, and we hope that you will continue the good work.

Building of Sistersville Industrially.

ALFRED JENKINS, Secretary Tyler County Chamber of Commerce, Sistersville, W. Va.

Within the past week Sistersville has given the world a striking example of the effectiveness of community enthusiasm, mass emotionalism and aggressive public spirit, having completed in less than a week a campaign for \$100,000, raising, to be exact, \$105,000. This money will be used for the upbuilding of Sistersville. Figuring in our past money-raising campaigns—\$15,000 for free sites (mentioned in the MANUFACTURERS RECORD about a month ago) and \$5000 for our Chamber of Commerce—Sistersville has raised in the past three months, since the writer has been secretary, \$125,000 for the upbuilding of this community.

We are now looking for about 10 or 15 going com-

cerns that desire to change their location owing to cramped quarters and economic reasons. We offer them free sites on the Baltimore & Ohio Railroad and Ohio River, eight-cent natural gas, current for power purposes at half cent per kilowatt horse-power, and financial assistance or free rent in an industrial incubator. We prefer these factories to be small going concerns, not seeking stock bonuses, and desirous of getting into a city that has unexcelled natural resources and cheap transportation. Those desiring from \$5000 to \$10,000 would interest us most.

The Mississippi River Problem.

J. S. ALLEN, Civil Engineer, Greenville, Miss.

I am a careful reader of your great journal, and am frank to say that I regard it as the greatest by far of all our Southern periodicals, but I am curious to know why you publish now and then articles such as "Can Mississippi River Flood Problems Be Controlled by Diversion," by a so-called engineer from New Mexico, who at one time says he has ridden through the country on horseback, and this in view of the fact that the Government has had the best engineers in its service working on this problem for the past 40 years, and they all agree in what should be done to help us with this great problem with which we have struggled to about the limit of our financial ability. Such articles as referred to above constitute the greatest enemy we have to combat in our efforts to have the Government follow out the recommendations of its own engineers and help us to take care of the waters sent upon us from about 40 other States. Look carefully into this matter, and I feel that you will no longer give space to men whose information is so meager. With best wishes for your continued success, I remain.

[The MANUFACTURERS RECORD publishes letters from responsible readers in order to give a hearing to all sides of important questions. Any enterprise that cannot stand criticism must be weak. We appreciate Mr. Allen's thought in the matter, but we think it looks at such criticisms from a wrong viewpoint.—Editor MANUFACTURERS RECORD.]

Used as a Textbook by Debaters.

W. E. WEGHORST, the Transue & Williams Company, Alliance, O.

Regarding the book expressed to the writer, beg to advise that the question of preparedness is to be debated in the Presbyterian church of our city tomorrow night, and the writer, being one of the speakers on the affirmative side, was searching various magazines for information when he came across your MANUFACTURERS RECORD, dated March 16, and seeing the comments made by various business men on your book on preparedness, decided to wire you immediately for the pamphlet in question. It was received Saturday morning, and I wish to thank you for the prompt attention given the matter.

Since reading over this little book I find that I will have sufficient information to meet my negative brethren at least halfway. Of course, I am not informed as to what they may have in store for me, but they are, no doubt, "preparing" regardless of the fact that they are against "preparedness."

Again I thank you for this literature, and assure you that I will do my utmost to present these facts to at least a few men of our city that they may be more convinced as to the problems now confronting our nation.

Preparedness Book Provides Valuable Ammunition.

JOHN WILLIAMS, Williams & Bell, Bank, Office and Store Fixtures, Murfreesboro, Tenn.

Please send us by return mail, with bill, copy of Mr. Edmonds' book, "National Insuredness Through National Preparedness."

We are subscribers to your paper, and are very much interested in your campaign for preparedness, and wish to congratulate you on your good work and the results you are obtaining. We have a copy of your editorials

published in pamphlet form, and we have given it to several to read and are still passing it around.

The writer is a member of a small club or Round Table, and it is his duty to submit a paper at the next meeting of the club. His topic will be "Preparedness," and he wants this book of Mr. Edmonds to use in getting up his paper. The industrial side of preparedness will be emphasized.

A Testimonial That Is Hard to Beat.

H. A. CAMP, President the Pole Stock Lumber Co., Hattiesburg, Miss.

I have been a constant reader of your paper for 18 years, and feel sure that I have gotten more general information as to what development is going on in the South than I have from all other papers published. I am so much interested in the constructive work that you are doing in behalf of Southern development that I look forward for several days to the coming of the next issue with such pleasant anticipation of what is in store that some of my friends have told me they could tell from my expression that the MANUFACTURERS RECORD was just about due.

Develop South's Steel Business.

[Athens (Ga.) Banner.]

In the discussion of the preparedness question, naturally attention has been directed to the sections of the country in which are made the ships and guns and shells which are necessary to carry on a war in case this country should be forced into war. It has been pointed out that a little strip of the east coast country, from Boston striking inward to the west circling south to take in Pittsburgh—and including New York and the Delaware and Virginia country—contains the greater part of the area in which are located plants for the making of munitions, arms and ships. This fact has stirred much vital comment. It has aroused the suggestion that in the South there are iron mines and untold possibilities for the development of manufacture of arms and implements, plate and munitions—in the South, away from the exposed area just mentioned.

A Fort Worth (Tex.) paper has the following:

"Untold and untapped iron-ore deposits in the South and Southwest are to be the nation's standby for munitions of war and peaceable enterprises, in the opinion of Richard H. Edmonds, editor of the MANUFACTURERS RECORD.

"It is a suggestion that ought to appeal to the exploiters of the earth's mineral resources, and it is presented with such vigor by the Baltimore editor and economist as to make it more of a demand than a suggestion. Mr. Edmonds believes the iron and steel interests would be justified in spending \$75,000,000 to \$100,000,000 to develop the vast iron and steel possibilities of Alabama, Tennessee, Texas and other Southern and Southwestern States, even if for the time being the profit would not be commensurate with the investment.

"In a booklet entitled 'National Insuredness Through National Preparedness,' he states that from 90 to 95 per cent. of the steel in the United States is made out of ores that could be instantaneously cut off in time of war, leaving the country utterly unable to check an invasion into the interior, for without steel we could not build ships, make guns or shells, continue to operate our railroads, etc.

"'Practically all of the munition-making industry of the United States,' he says, 'is in a narrow strip of country along the Atlantic coast from Massachusetts to Virginia. If this region were captured we could not by any possibility maintain an army or a navy, because in that region exist all of our important shipyards as well as our gun and shell and powder-making plants.'"

The Great Progress of the South.

[Hopewell (Va.) Daily News.]

In reviewing the remarkable progress of the South in its farm crops alone, the MANUFACTURERS RECORD shows for the past year some truly astonishing figures.

The whole country gained in farm crops in 1915, \$526,070,000, and of this gain, \$317,200,000, or a little over 60 per cent., was in the South, an amazing increase in the agriculture of this part of the country. The gain in the entire country outside of the South was \$208,861,000, or \$108,400,000 less than the gain in the South, and this does not include the value of animal products. But the South has exactly one-third of the total number of livestock in the United States. The animal products of the South total in round figures \$1,000,000,000, and then if we add this sum to the farm crops we have a grand total of \$3,600,000,000 as the value of all agricultural products of the South, and of this, \$750,000,000 was represented by King Cotton. The value of Virginia's farm crops last year was \$152,717,000. So, the estimated crop values for the South in 1915 was \$2,607,347,000, and the total for the rest of the country was \$4,181,556,000.

We present these astonishing figures of the immense increase of the South, both in farm and agricultural products to our readers because they are considered as correct as such figures can in the nature of things be, and are gathered by the MANUFACTURERS RECORD from its good and reliable system of collecting this kind of data. Now who can say on looking at this grand array of figures of the truly wonderful increase in the South as to its agricultural and farm products, that she is not outstripping all the rest of the United States, certainly in these vital things which go so largely to finally make up the wealth, progress and development of our entire country. Our Southland is surely thus weaving the great destiny of her future grand career.

Book on Preparedness.

[Hickory (N. C.) Democrat.]

"National Insuredness Through National Preparedness" is the title of a book of 100 pages by Richard H. Edmonds, editor of the MANUFACTURERS RECORD, just issued by the Manufacturers Record Publishing Co. of Baltimore, Md. The price of the book is 50 cents a copy. It is not published with any thought of money-making. Its publication and distribution will be done at considerable expense, but the publishers are glad to make this contribution to a work of such supreme national importance.

It is appropriate, we believe, that at this time every intelligent man should study these questions as presented in this book, so as to be fully informed of the mighty problems affecting all of our industrial interests as well as the life of the nation.

The South's Advance in Agriculture.

[Concord (N. C.) Times.]

The MANUFACTURERS RECORD in this week's issue publishes an elaborate review of the value of the farm products of the South last year, and the figures show an amazing increase.

The figures make us all feel glad that we live in the South. And the growth and prosperity of this great section has just begun.

An Amazing Advance.

[Fort Myers (Fla.) Press.]

The MANUFACTURERS RECORD of Baltimore, ever on the alert and constantly working for the upbuilding of the South, the nation's greatest and most promising section, publishes an elaborate review of the value of farm products of the South last year, showing some astounding figures.

Air Self-Hardening Tool Steel.

Gustaf Jaantinen, Vasa, Finland:

"I am interested to represent a firm for air self-hardening tool steel, and would be obliged for addresses of reliable firms in this line. Send me also copy of the MANUFACTURERS RECORD, stating the fee for remuneration. If I should write to any of the advertisers I shall mention the source of my information."

Can Peanut Oil Industry Be Commercially Established Here?

By W. R. BEATTIE, Agricultural Commissioner, St. Louis Southwestern Railway Co., St. Louis, Mo.

During recent years there have been a number of attempts to manufacture peanut oil in the United States and to find a stable demand for this oil on our markets. That these attempts have been more or less of a failure is evidenced by the fact that until very recently peanut oil has been comparatively unknown on our markets. The enforcement of the pure-food laws has been a factor in bringing peanut oil to the attention of the trade and public in general, as under these laws it could not be mixed with or sold as olive oil without proper labeling.

Peanut oil has for many years been a standard commodity as a salad and cooking oil in European countries, and the oil mills of Marseilles, Delft and other cities have for a century or more been manufacturing the oil and cake from African-grown peanuts. The present European war has not only curtailed the production of this oil, but increased the demand for it, and as a result shipments to the United States have practically ceased. This condition has opened to the oil interests of this country a wonderful opportunity for the establishment of the industry, and should the present conditions continue for a period of years there can be no doubt regarding the permanence of the peanut-oil industry in the United States.

Another important factor that is contributing to the establishment of the peanut-oil industry is the high price of animal fats and the scarcity of cottonseed. The shortage of lard and similar frying and shortening fats is alone sufficient cause for the establishment of the peanut-oil industry. To this add the fact that the cotton-oil mills of the South are only operating five or six months each year on account of the scarcity of cottonseed. These mills represent a great investment, and their enforced idleness for about half of the year is seriously interfering with the payment of dividends.

The peanut-oil proposition fits into the business scheme very nicely, because the peanuts when properly cured and handled can be stored almost indefinitely and the crushing of the peanuts need not begin until the cottonseed is entirely out of the way. Very little additional machinery or alteration of the regular cottonseed-oil equipment is necessary to convert our present mills for the production of peanut oil, merely a shutdown of a few days to clean the equipment and rearrange for handling the peanuts. During the past four or five years the supply of cottonseed has become exhausted by April 1, and often earlier. Some of the mills have only had a run extending over three or four months. The addition of the peanut to the system will prolong the crushing period well into the summer, or even until cottonseed again becomes available.

One determining factor in the future of the peanut-oil industry in the United States will be the relation between the price that the oil mills can afford to pay the farmers and the cost of growing the crop. It is reasonably certain, under present conditions, that the prices paid the farmers cannot be high as compared with those paid by the regular peanut trade during recent years. It is also certain that the entry of the oil mills into the peanut proposition will serve to standardize prices and control speculation. The great increase of production that will follow the establishment of the oil industry will take the control of prices out of the hands of the usual trade; in fact, so far as the Spanish variety is concerned, prices will be governed by those paid by the oil mills. During recent years the demand for clean shelled peanuts for manufacturing purposes has increased by leaps and bounds, and new uses are being found for them almost every day. Many of the oil mills are already preparing to put in equipment for turning out a certain quantity of first-class shelled Spanish as a side issue to increase the profits of the business.

Another phase of the situation is the relation of profit per acre to the farmer between cotton and peanuts. The average yield of peanuts is about 40 bushels to the acre and three-quarters of a ton of splendid hay. The maximum value of the peanuts for oil production is, under present conditions, 60 cents a bushel, or \$24 an acre. The value of the hay is \$12 a ton, or \$8 an

acre, making a total of \$32 an acre. On the basis of one-third of a bale of cotton to the acre, the lint and seed together will yield a return of about \$22. Figures obtained by the experience of a great many farmers indicate that the cost of growing an acre of peanuts is no greater than that for an acre of cotton, if as great—that is, between \$14 and \$15, including all labor and expenses. The return or net profit to the farmer is approximately \$10 greater for peanuts than for cotton. When these facts are clearly understood by the farmers of the sandy land districts of the South there will be little difficulty so far as their attitude toward the peanut crop is concerned.

The main difficulty is going to be with the bankers and the merchants in the matter of extending credit to the farmers who plant peanuts. Fortunately, the oil-mill owners and the bankers are closely related or identically the same, and there should be little difficulty with the credit problem. In many sections Spanish peanuts are now on a parity with cotton so far as the extension of credit is concerned, and the crop has come to be recognized as just as safe from a security standpoint.

Following out the figures given above, relative to the production and value of Spanish peanuts from the farmers' standpoint, let us see what results are obtained in oil production and profits. Forty bushels, 1200 pounds, of first-class Spanish peanuts will yield approximately 40 gallons of oil and 480 to 600 pounds of cake, according to the amount of hulls ground with the meats. The greater the amount of hulls allowed to remain with the meats to form a binder, the lower will be the production of oil, owing to the absorptive power of the hulls. The hulls of Spanish peanuts contain from 3 to 4 per cent. of oil, and the difference between this and the percentage of oil in the cake will represent the loss. On this basis, with oil selling at 65 cents and cake at \$30 a ton the gross, returns would be \$35 an acre, and for which the oil mill pays \$24, the hay remaining in the possession of the farmer and constituting a portion of his profits. On this basis the peanut-oil industry has a certain future in the United States so long as the market for the oil and cake can be found.

The value of the peanut oilcake will depend somewhat on the amount of shells left in it, but it is equal to cottonseed cake, and in one or two respects is superior for feeding purposes. Great quantities of this cake can be utilized for the fattening of hogs, for which purpose it is superior to peanuts themselves, due to the fact that the greater part of the oil has been removed and the pork is not soft and oily, as is the case where whole nuts are fed. As the industry becomes established and the people learn the value of the oil for salad and cooking purposes there is certain to be a greatly-increased demand and the oil will become a standard commodity on our markets.

The quantity of Spanish peanuts that could be utilized by the oil mills of the South is problematical. The oil mills of the State of Texas alone crush about 2,000,000 tons of cottonseed annually, yielding approximately 75,000,000 gallons of oil. To produce a similar amount of peanut oil will require 1,500,000 tons of peanuts, or approximately 100,000,000 bushels of 30 pounds each. In Texas alone there are about 12,000,000 acres of land annually planted to cotton, producing nearly 4,000,000 bales of lint and 2,000,000 tons of seed. If the farmers of Texas were to plant 2,500,000 acres to peanuts and make a yield of 40 bushels to an acre they would produce 100,000,000 bushels of peanuts, or sufficient to yield more oil than is now obtained from the 2,000,000 tons of cottonseed. In other words, 2,500,000 acres of Texas sandy lands will yield more oil than is now obtained from 12,000,000 acres of cotton. With these approximate figures before us, we are safe in assuming that the farmers of Texas may very soon produce peanuts to an extent that will put the production of peanut oil on a parity with that of cottonseed oil.

Wendell (N. C.) Knitting Mills plan to add a finishing plant.

Southern Industrial Activities.

Since January 1 there has been published by the Construction Department of the MANUFACTURERS RECORD a total of 14,866 items relating to industrial developments, erection of buildings, financial and railroad operations, and general business interests in the South and Southwest. This number exceeds by more than 2000 the number shown for the same period in 1915, when a total of 12,147 items were noted, and it includes brief descriptions of many important and varied interests as they have been originated or carried forward to accomplishment.

Under appropriate headings the items for January and February were previously detailed. The accompanying table details the items for March, and also summarizes the lists for the three months of January, February and March:

		Totals for March	Totals for three months January, February and March
Industrial and Developmental.			
Bridges, Culverts, Viaducts.....	110	219	109
Canning and Packing Plants.....	29	29	29
Clayworking Plants.....	9	9	9
Coal Mines and Coke Ovens.....	41	41	41
Concrete and Cement Plants.....	7	7	7
Cotton Compresses and Gins.....	21	21	21
Cottonseed-oil Mills.....	4	4	4
Drainage Systems.....	18	18	18
Electric Plants.....	155	155	155
Fertilizer Factories.....	16	16	16
Flour, Feed and Meal Mills.....	26	26	26
Foundry and Machine Plants.....	42	42	42
Gas and Oil Enterprises.....	191	191	191
Hydro-electric Plants.....	9	9	9
Ice and Cold-storage Plants.....	54	54	54
Iron and Steel Plants.....	12	12	12
Irrigation Systems.....	2	2	2
Land Developments.....	53	53	53
Lumber Manufacturing.....	58	58	58
Metal-working Plants.....	9	9	9
Mining.....	84	84	84
Miscellaneous Construction.....	39	39	39
Miscellaneous Enterprises.....	118	118	118
Miscellaneous Factories.....	215	215	215
Motors and Garages.....	88	88	88
Railway Shops, Terminals, Roundhouses, etc.....	7	7	7
Road and Street Work.....	445	445	445
Sewer Construction.....	94	94	94
Telephone Systems.....	29	29	29
Textile Mills.....	102	102	102
Water-works.....	139	139	139
Woodworking Plants.....	52	52	52
Buildings.			
Apartment-houses.....	172	172	172
Association and Fraternal.....	48	48	48
Bank and Office.....	117	117	117
Churches.....	181	181	181
City and County.....	82	82	82
Courthouses.....	44	44	44
Dwellings.....	686	686	686
Government and State.....	19	19	19
Hospitals, Sanitariums, etc.....	45	45	45
Hotels.....	85	85	85
Miscellaneous.....	82	82	82
Railway Stations, Sheds, etc.....	25	25	25
Schools.....	203	203	203
Stores.....	45	45	45
Theaters.....	45	45	45
Warehouses.....	45	45	45
Railroad Construction.			
Railways.....	94	94	94
Street Railways.....	8	8	8
Financial.			
Corporations.....	85	85	85
New Securities.....	506	506	506
Fire Damage, etc.....	5,343	5,343	5,343
Machinery, Proposals and Supplies Wanted.....	725	725	725
Total.....	6,431	6,431	6,431

North Carolina Made First Geological Survey.

North Carolina was the first State in the Union to recognize the need of geologic surveys within its borders. In 1823 an act of the General Assembly authorized the Board of Agriculture to pay the expenses of "geological excursions" for a period of years, as a result of which several geologic reports on the State were published. South Carolina was quick to follow the example of her sister State, and in 1824 established a State Geological Survey, whose geologic report, appearing in 1826, was the first issued under the patronage of any State.

Massachusetts and Tennessee early established official geological surveys on a much larger scale than those of North and South Carolina, and in 1833 Maryland followed their example. To Maryland also belongs the credit of being the first State to undertake a topographic survey, in which she obtained the co-operation of the Coast and Geodetic Survey. This marks the beginning of the Federal and State co-operation in such matters which is now so important in topographic mapping and in the investigation of our mineral resources.

Harnessing Unused Water-Power in Interest of Industrial Development

OBJECTS AIMED AT BY ASSOCIATION OF LEADING MACHINERY AND EQUIPMENT MANUFACTURERS—SINISTER MOTIVES OF OPPOSING INFLUENCE SUGGESTED.

[Special Correspondence Manufacturers Record.]

Washington, D. C., March 31.

The Water Power Development Association has been waging an educational campaign to bring about definite, constructive action at the present session of Congress. This organization was formed for the purpose of co-ordinating the forces in favor of progress and assisting as far as possible in removing the causes of stagnation in water-power development.

The association has opened offices in Washington, and has started an extensive publicity campaign embracing the metropolitan dailies of the country and the country dailies and weeklies. It has planned to disseminate information by special reports about the undeveloped water-powers of the United States and the advantages to the entire country which will accrue from their development.

The association is being financed entirely by subscriptions, and the extent of achievements will necessarily depend upon the funds at its disposal. Participation has been limited to business concerns interested in the manufacture or sale of anything used in the construction or operation of hydraulic power installations.

A number of companies, prominent among the manufacturers of products such as have been mentioned, in signifying their hearty endorsement of this movement, have joined in its inauguration and have subscribed liberally to the underwriting of the initial expense. The executive committee desires to extend the membership list of the association and to conduct as vigorous a publicity campaign as its funds will permit. The committee is composed of H. W. Hand, chairman; Calvert Townley, W. W. Nichols, Chester W. Larner, J. E. Way.

Among the business concerns identified with the association are the Allis-Chalmers Manufacturing Co.; Aluminum Company of America; American Rolling Mill Co.; American Smelting & Refining Co.; Anaconda Copper Mining Co.; Archbold-Brady Company; Buffalo Foundry & Machine Co.; Chicago Bridge and Iron Works; General Electric Co.; Goulds Manufacturing Co.; James Leffel & Co.; Locke Insulator Manufacturing Co.; Morris Company; Ohio Brass Co.; Pelton Water-Wheel Co.; Pittsburgh High Voltage Insulator Co.; Platt Iron Works; S. Morgan Smith Company; Standard Underground Cable Co.; R. Thomas & Sons Company; Wellman-Seaver-Morgan Company, and Westinghouse Electric & Manufacturing Co.

Those who are joining the Water Power Development Association are subscribing \$100 each. This fact is stated so that there may be no doubt in the minds of Gifford Pinchot and others with reference to the amounts and where they come from. None of the capitalists who are interested in actual development projects is a member of the new association, nor will there be any such members.

The association is not committed to any bill. Its only program is to advocate action that will protect the rights of the public and yet provide terms to investors that will warrant their going into the water-power business. The men who are leading the movement make no concealment of the fact that along with any advantage or benefit that will come to the country generally, they personally will benefit by reason of the increased demand for the articles which they manufacture. This is the participation which they will have in the prosperity which is expected to follow development.

In a statement setting forth its exact purposes, the new association succinctly summarizes the water-power situation as it stands, as well as the purposes of the association, as follows:

In the absence of remedial legislation at Washington, water-power development in the United States, in so far as public lands and navigable waters are concerned, is practically at a standstill. A leading authority summarizes the need of immediate action as follows: "It is apparent that there is vital and imperatively urgent necessity for the enactment of practical Federal water-power legislation of a character which will promote and encourage

age in every way the development and utilization of the enormous quantity of energy latent in our streams and now wasting to the sea; a necessity in no way local, but national. It is necessary for the manufacture of ammunition for the national defense; necessary for the manufacture of fertilizers that the cost of living may be decreased through increase of crops; necessary for the electrification of railroads for the cheap carrying of freight, and to provide a means of rapid and comfortable transportation for the people; necessary to the irrigation of vast tracts of lands, meaning the building of thousands of homes on land now silent; necessary to the establishment of great and entirely new industries in the United States, meaning the investment of hundreds of millions of dollars."

A large part of the undeveloped water-powers are to be found in the Western States, where the Federal Government owns from thirty per cent. to ninety per cent. of the land, the percentage varying in different States of the West. These lands are under the jurisdiction of the departments of the Interior and of Agriculture and may be occupied only by virtue of permits issued by those departments. The present law does not allow the issuance of any form of permit except one which any Secretary of the Interior or of Agriculture may revoke, at his pleasure, a condition which has operated for many years practically to deter capital from flowing into such enterprises.

This situation could be remedied by a law authorizing the issuance of permits affording stability of tenure for the occupancy of public lands under suitable restrictions. No water-power development can be made on navigable streams without the consent of Congress, therefore a separate act is required for each particular development. In recent years Congress has been practically unable to agree upon the terms of each act, and little if any progress has been made. This situation could be remedied by the passage of a general act authorizing the Secretary of War to permit developments on navigable streams upon terms and conditions fixed by such general act. Various departments of the Federal Government have been investigating these facts for a number of years, and a sincere effort is being made to remedy this situation. During the last two sessions of Congress a number of bills have been introduced. The necessity of protecting both the public and the investor is recognized. There are, of course, conflicting opinions as to just how this can be accomplished.

The organization headed by Gifford Pinchot has been taking advantage of the Senate debate on the Shields General Dam Bill to flood Congress and the press of the country with misinformation as to the proposed water-power legislation. There is an immediate necessity, therefore, to correct this impression and stimulate the proponents of these bills by a campaign of truth about the water-power business. The Water Power Development Association has been formed for the purpose of co-ordinating the forces in favor of progress and in assisting as far as may be in removing the causes of stagnation in this important industry.

It is curious to note that while the policy of the Water Power Development Association is based upon broad lines, serving the practical interest of national prosperity, the policy pursued by Gifford Pinchot has been the direct opposite. It is a fair statement that Gifford Pinchot has never favored any water-power measure which had the slightest chance of passing and becoming a law. The inevitable inference is that Mr. Pinchot does not want any legislation, and does not wish to encourage any compromise which would lead to development. The same position is taken by some of the coal interests, which took the narrow ground that the development of water-power would reduce the consumption of coal.

The chief target of Mr. Pinchot's attack has been the Shields bill, which recently passed the Senate by a two to one majority. Although it is inconceivable that so overwhelming a majority of the United States Senate would vote for an improper measure after a thorough study and debate extending over a period of several months, nevertheless Mr. Pinchot has said:

"No worse assault on the rights of the people has been committed in Congress in many years than the Shields water-power grab bill in the Senate. The water-power interests won. The people lost because a majority of their representatives in the Senate went back on them."

Representative Kent of California likewise has attacked the bill.

The great danger is that the Pinchot men will succeed in holding up all legislation. The kind of a bill that

Pinchot would write or approve would not meet with the general approval of either the House or Senate. The movement for developing water-power on the navigable streams and on land owned by the Government has at last taken a practical form in the Myers and Shields bills, both of which were framed after hearing at length the views of former Secretary of War Garrison and Secretary of the Interior Lane. Mr. Lane has approved of the Myers Government-land water-power bill with the exception of one minor particular.

The Shields bill was in line with the policy advocated by Secretary of War Garrison. Mr. Pinchot's publicity movement is designed merely to muddy the waters and hold up legislation for a long time to come.

The Water Power Development Association was formed to meet Mr. Pinchot in the open with his own weapons. The only difference is that Mr. Pinchot persists in dealing with generalities, while the Water Power Development Association is giving the facts.

Recently H. W. Hand, vice-president of the I. P. Morris Company, a subsidiary of the Cramp shipbuilding firm of Philadelphia, and chairman of the Development Association, sent the following telegram to Pinchot:

In a statement issued by you last night in Washington you accused President Wilson and the Administration of having submitted passively to the passage by the Senate of the Shields Water-Power Bill. In spite of the fact that the National Conservation Association had laid the facts about the Shields bill before the President in an open letter of January 29, you characterized the measure as the "Shields Water-Power Grabbing Bill" and termed it the most serious attack upon conservation since the effort to turn Alaska over to the Guggenheims was blocked in 1910.

This telegram is addressed to you and copies of it have been distributed to the press of the country, because the Water Power Development Association proposes that the people of this country shall judge of the facts for themselves and no longer shall be misled by veiled warnings and innuendoes contained in such statements as have characterized your campaign of the last eight years against fair water-power legislation. The association is composed of manufacturers vitally interested in the proper development of water-power, because they build water-power machinery and the hundred and one materials demanded by the operation of water-power plants. The newspapers have published a list of our members and of our officers. Such companies as the I. P. Morris Company, subsidiary of William Cramp & Sons, ship and engine building company; the Allis-Chalmers Company and the Westinghouse Electric & Manufacturing Co. are represented in our executive committee, so the public may know just who are concerned in this effort to open to development a field which will give employment to labor and capital.

Now, Mr. Pinchot, will you tell the public whom you represent?

Is it not a fact that the National Conservation Congress, an entirely separate body from your association, recently found the occasion to call on the President for the purpose of repudiating you as its spokesman and pointing out to the President that there was no connection whatever between your National Conservation Association and the real National Conservation Congress?

Is it not a fact that you have never publicly proclaimed this great distinction, and is it not a fact, moreover, that you have sedulously refrained from correcting the error when yours and the real Conservation Congress have been confused in the public mind?

These questions are important, Mr. Pinchot, and demand a reply. Everyone knows whom the Water Power Development Association represents; its purpose and its membership have been announced in the public prints. There seems to be some confusion as to whom, besides yourself, you really represent.

Who authorized you to speak for the National Conservation Association in your letter to the President. Is it not a fact that you expressed only your own personal views and used the name of the National Conservation Association to make it appear that you were speaking for a multitude?

The Water Power Development Association holds no brief for the Shields bill. It is committed to no measure now in Congress or to the association's knowledge likely to be introduced there. The association, representing an industry of some 600 manufacturers, employing 400,000 men, is openly asking only such legislation as will enable us to keep our plants occupied and to continue employment to labor dependent upon us when the war orders from Europe, which now keep many of us employed, shall cease.

This is the sole purpose of our association, and to effect it we intend to take the public into our confidence, to tell the truth about the water-power situation in this country, and to answer in detail every statement to those opposed to water-power legislation, fair alike to the public and the investor.

If the truth had been known eight years ago, the United States might have stood today beside Norway, Germany, or even Bulgaria, where water-power has replaced the use of steam power, with savings to the people of millions of dollars. So, Mr. Pinchot, we demand that you state your objections to fair water-power legislation. Give us arguments instead of generalities and abuse, and we will meet them with facts and leave the decision to the public and to Congress.

No answer has yet been made.

New River Navigation Service with Rhine Type of Steamers

[Special Correspondence Manufacturers Record.]

New Orleans, La., April 1.

The first thorough test of the possibilities of successful modern water transportation on the Mississippi and its tributaries is planned to have its formal beginning April 13, 1916.

On that date the first of the adapted "Rhine steamers" of the new Inland Navigation Co. is scheduled to begin her initial journey down the Mississippi from St. Louis to New Orleans. This craft is a self-propelled, quadruple-screw, all-steel, Fairbanks-Morse "gas producer" engine barge, equipped with freight-handling devices and cranes, a simple removable "cargo box" for freight imposed upon a bridge-structured hull. It is capable of nine miles an hour against the ordinary four or five-mile river current, and 13 miles downstream. The cargo capacity is 1600 tons.

On March 19 the trial trip of the craft was made in the Ohio River near Jeffersonville, Ind., where she had been constructed by the Howard Shipyards Co.

"Inco No. 1," as the barge is designated, has two sister ships on the ways, and four others contracted for. These seven are proposed to be in operation before the beginning of 1917, and the plans of the company call for 28 others of varying sizes and types to meet the demands of varying sorts of traffic in which they will specialize.

John H. Bernhard, a young Netherlands "navigation engineer," is the promoter of the company. Mr. Bernhard is authority for the statement that the chairman of the board of directors is D. A. Thomas, now known as the Right Honorable Lord Rhondda, the wealthy Welsh coal mine operator and capitalist, who has been representing Great Britain in its munitions purchasing and financing arrangements in the United States since the beginning of the war.

Other directors whose names have been made public are A. Seinstein, president of the Union Light & Power Co. of St. Louis and G. W. Neidringhaus, general manager of the National Enameling & Stamping Co.

The real resources behind the company and the confidence in the promoters' plans which have rendered its actual test a possibility come from Lord Rhondda. The primary capital is English. This is augmented by St. Louis and New York interests persuaded by the confidence shown by Lord Rhondda.

Neither the original idea nor the essential first store of cash came from either end or any part of the Mississippi Valley. It is true, however, that the show of confidence from abroad has persuaded many elements in the valley to a more generous optimism than was at first shown.

The organization of the Inland Navigation Co. has come directly from a laboratory experiment in modern inland navigation conducted by John H. Bernhard in the summer of 1914 with a canal and still water self-propelled barge constructed by him for the Alabama & New Orleans Transportation Co., which for a time operated a line of barges into the Warrior River under his management.

The line got into difficulties. Bernhard and the company agreed to disagree. The line ceased operation, pending the opening of a last lock in the Warrior River and pending reorganization.

Bernhard chartered one barge, and just at the eve of the war staked everything he had in the world on an experimental journey up the river. He took on a cargo of hardwood lumber at Jeffris, La., and this, with some coffee and molasses from New Orleans, furnished the first through cargo that had moved from the lower river to St. Louis by boat in many years—the first through cargo of any sort that had ever moved up the Mississippi in a craft that approximated in style and method of operation the modern transports of the Rhine, Elbe and other rivers where river navigation efficiency supplements rail traffic.

The barge did not possess sufficient power to face properly the Mississippi current. It took over 20 days to make the journey to St. Louis. At times the speed was under two miles an hour. The crew was green, and in part rebellious. The pilots had not been over

the river in many seasons. There were no facilities for loading, and none for unloading. The boat itself had no freight-handling devices.

Yet, in actual movement, the cost was cut down to the phenomenal figure of approximately one mill per ton mile for the lumber cargo between Jeffris and St. Louis.

The outbreak of the war came as the barge moved into St. Louis. In Minneapolis, the barge's final destination, Bernhard was refused the cargo of flour on which he had banked to "break even" and make a little money. The barge came home practically in ballast. Bernhard lost everything he possessed, and his laboratory experiment in river navigation came to an end. It had received polite and interested attention along the way, but business men and shippers were skeptical and chary in their pledges or promises of aid. They saw the imperfections of the experimental voyage—not the perfected machinery which that voyage showed would be necessary.

Bernhard came back to New Orleans "flat broke," but confident. A group of 10 men in New Orleans financed him for a term of months in the East and North while he perfected the plan of organization for a proposed great navigation company which should include not only a fleet of modern waterway craft, but terminal facilities, collecting and delivery service and traffic connections with packet boat lines to minor points as well as through connections with north-country railroads desiring an outlet to the sea.

Bernhard kept on the job, doing a little engineering and other professional work from time to time.

He won the attention, and finally the confidence, of the interests that have financed him thus far in the new venture. The three barges completed or near completion, the four contracted for and the twenty-odd other designed speak for the expenditures this confidence has felt to be justified.

Announcement of tariffs for the Inland Navigation Co.'s new water craft has been received in this city. The company announces that it will carry freight on through bills of lading to any point in the world in which its service may be an economical link "except in less than carload shipments. Where the point of origin of the freight is located on a switchtrack we will absorb the switching charges at place of origin. Likewise we will absorb loading and unloading charges and switching charges at place of destination unless point of destination is not located on a switchtrack.

Says Mr. Bernhard, executive head of the company: "We will be able to deliver freight on through bills of lading to Europe, South America and other foreign countries.

"It is the aim of this company, when its system is complete, to reduce all rail rates 25 per cent. During the first year, however, we will reduce the rate only 25 per cent. of the net receipt to our company. Our charges will include all costs from consignor to consignee."

Stops are announced on the first voyage at Joppa, Ill., to collect Illinois, Indiana, upper Ohio and Minnesota freight, and to deliver there freight for Chattanooga and Nashville to connecting steamboat lines; at Memphis, for interior points west and east of the river; at Greenville, for Mississippi freight; then at New Orleans for transshipment of export and coastwise traffic.

It is said in the communications received in New Orleans that the Delaware, Gulf & Pacific Steamship Transportation Co. has been established as a subsidiary of the Inland Navigation Co. to operate tramp steamships from New Orleans to coastwise points on the Atlantic and Pacific coasts. Traffic arrangements have been made with the Alaska Steamship Co. for communication with that territory. Friendly relations have been completed with British transatlantic lines for outlet abroad.

There has been perfected a working association including the following steamboat companies now operating old-fashioned steamers in packet service: The Lee Line, out of Memphis; the Eagle, Strekfus and

Wishard lines, out of St. Louis; the Chattanooga Packet Co., running into the Tennessee river. In addition, the Kansas City-Missouri River Navigation Co., operating improved craft and barges between Kansas City and St. Louis, has joined this association.

Two railroad lines which touch the Upper Mississippi and have no intimate outlet to the Gulf have also pledged intimate traffic agreements.

The Inland Navigation Co. has filed a petition with the Interstate Commerce Commission to compel through bills of lading and an apportionment of charges from other railroads entering St. Louis which have not as yet agreed to recognize the new transportation factor.

There is also an intimate relationship being perfected between the Inland Navigation Co., of which Bernhard is now the directing head, and the Alabama & New Orleans Transportation Co., of which he was first the head, next the ousted manager, and later the friendly reviver and guider back to active life. The Inland Navigation Co. will deliver to and collect from the Alabama & New Orleans Transportation Co. traffic moving between central Alabama and the St. Louis territory.

"It is necessary to our full success and usefulness to the Valley that modern rail-and-river terminals be installed at the river ports," said Mr. Bernhard. "But even before that is done we plan a service that will be just as convenient as that now rendered by the railroads, just as dependable in time of delivery and for most varieties of traffic more speedy.

"We are not coming to take business 'away from the railroads,' but to build up the business of the Valley, render a service that is so needed that we can make money by rendering it. We are coming to help the railroads carry a traffic that is getting too big for them, and is already big enough for us both."

St. Louis is planning a special \$250,000 landing for the barges.

Memphis, Greenville and Cairo have improvised accommodations.

In New Orleans the Port Commission is to give special reservations.

In the Upper Mississippi there has been a lively interest in the revival of the use of the Mississippi River as a transportation agent, and the Upper Mississippi River Improvement Association, including in its membership the group of thriving cities from St. Louis to Minneapolis, including both the terminal cities, are at work through conference committees in devising standardized river-front and rail freight handling for all the river towns.

Minneapolis and St. Paul, together, are working out a plan for a river, rail and warehouse terminal to cost millions.

The Chicago-Mississippi navigation canal, authorized by the last session of the Illinois Legislature, to be completed with a depth sufficient for craft of the "Inco" type, will, when finished, furnish route for an extension of the Inland Navigation Co.'s lines into Chicago and for a through service between New Orleans and the Great Lakes—if the "Inco" plans all carry through.

In New Orleans the long-delayed but still assured "Mississippi-Lake Pontchartrain Industrial Canal" will give short connection to the east along the Gulf coast, and likewise furnish what will probably be the site for the Southern terminal of the Inland Transportation Co.

Mr. Bernhard, while on his last trip to New Orleans, announced that the Inland Navigation Co. would open two shipbuilding and repair yards for its own fleets, one at East St. Louis and the other in New Orleans.

"There is no reason why we cannot operate 5000-ton barges on the main route of the Mississippi," he said, "and I have the plans drawn for such a craft which can ply the Mississippi between New Orleans and St. Louis, drawing no more than 7½ feet when loaded."

Gaffney Wants Chamber of Commerce Secretary.

The town of Gaffney, S. C., located in the Piedmont region, having prospects in the way of industrial development, has recently organized a strong Chamber of Commerce, and desires to secure a regular salaried secretary who has had experience in this line.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

\$1,000,000 TERMINAL CONTRACT.

Thomas & Jones of St. Louis Will Build New Stations at San Antonio.

Charles E. Schaff, receiver of the Missouri, Kansas & Texas Railway, telegraphs the MANUFACTURERS RECORD that Thomas & Jones of St. Louis are the general contractors for the construction of the new terminals of the road at San Antonio, Tex., and that the improvements will cost about \$1,000,000, exclusive of the site. Plans for the work are not yet complete.

The San Antonio Belt & Terminal Railway Co., which was organized some time ago to provide the terminals for the Missouri, Kansas & Texas Railway, has asked the Texas Railroad Commission for authority to issue \$1,750,000 of notes to finance the construction. According to a previous report from San Antonio, the site was the most expensive part of the improvement, but the statement of Mr. Schaff reveals that the purpose of the company is to expend the larger part of the money upon the stations, yards, etc. The contract, it is understood, is let upon a percentage basis, and \$500,000 have been authorized for immediate use.

A passenger station and a freight depot are provided for in the plans, but the latter will be first constructed, because it is the most urgently needed. An official statement says that the sale of the notes has been arranged through St. Louis bankers, and that \$750,000 of the proceeds will be used to pay a loan covering part of the expenditures for real estate, this being in addition to the \$500,000 voted for construction. This would, it appears, leave another \$500,000 to complete the terminal. Plans have been drawn for the freight station, and plans for the passenger terminal will be undertaken immediately. This, it is said, will be in keeping with the importance of San Antonio as a railroad center.

The statement of the company also says that the development of the southwestern part of Texas and the growth of San Antonio have made the present facilities inadequate to handle the business of the railroads centering there, and the new terminal will enable the Missouri, Kansas & Texas Railway to meet the requirements of San Antonio, whose railroad needs are certain to grow. "The rank San Antonio has taken as a commercial center," continues the statement, "and its relationship as a gateway to Mexico make it necessary that we be equipped to keep pace with future development as well as to meet our present needs."

The Missouri, Kansas & Texas Railway now uses the terminals of the Galveston, Harrisburg & San Antonio Railroad, one of the Southern Pacific lines.

A Railroad's Work for Agriculture.

The Southern Railway Co. says that reports from the agents of its agricultural division for the calendar year 1915 bear out the Government statistics as to agricultural progress in the South and show the accomplishment of substantial results in the work done by the railroad.

By personal visits to farmers and by talks at farmers' meetings the agents of the company gave advice to approximately 150,000 farmers. As in former years, demonstration work was done on a large number of farms all along the company's lines, the greater part of it with cotton and corn. The reports of production on these farms show an average yield of 1170 pounds of cotton per acre, compared with averages ranging from 591 to 741 pounds on similar lands in the same localities where the improved methods advised by the agents were not adopted. Reports on corn show an average production of 46.7 bushels per acre on farms where the methods advised were adopted, as compared with an average yield of less than 22 bushels on similar lands in the same localities.

Advice was given as to crops of all kinds, and especially to the growing of legumes and the planting of winter cover crops. Seed selection was encouraged and many farmers were assisted in breeding improved seeds.

The importance of drainage was emphasized and assistance was given in tile drainage, ditching and terracing.

With the rapid progress being made in the eradication of the cattle tick and the control of hog cholera in the South, farmers in all the States are turning their attention to more and better livestock. The agricultural agents report the location along the lines of the company during the year of 2743 pure-bred beef cattle, 3250 dairy cattle and 6038 hogs. When the agricultural work of Southern Railway began silos were almost unknown in many parts of the South. They are now to be found in almost every neighborhood, and approximately 900 were built along the lines of the company during the year.

In all parts of the territory the efficiency of the work being done has been due in large measure to the close co-operation between the agents of the railroad and those of the State and Federal governments.

PLANS FOR RIVER TERMINALS.

Electric Railway to Run from Birmingham to Jasper, Ala.

W. W. Shortridge, treasurer and secretary of the Birmingham Interurban Development Co., which has been formed at Birmingham, says that it proposes to build an electric railway from there to Jasper, Ala., via the Warrior River, Dora and Cordova, about 45 miles. There will be two crossings of the Warrior, one at the Locust Fork and the other at Mulberry Fork. Wharf terminals are to be built for the transfer of freight to and from vessels which will run to the Gulf of Mexico. Pleasure parks are also contemplated. Construction of the line will probably be heavy, as the route lies through rough country.

W. A. Spencer of Wylam, Ala., is president; A. S. Preston of Jasper is vice-president, and the other directors, including Mr. Shortridge, are H. E. McCormack and W. F. Aldrich of Birmingham, E. T. Hendon of Cordova, J. H. Bankhead, Jr., of Jasper, and C. I. Jones of Dora, Ala.

A report from Birmingham quotes Mr. Shortridge as saying that the survey will provide for a right of way 100 feet wide, and that the maximum grade will be 2 per cent. An engineering corps will be organized immediately.

Southern Railway's Earnings Swelling.

The Southern Railway's financial statement for February shows that its gross revenue during the month was \$5,627,162, an increase of nearly 22 per cent. as compared with the same month of last year and of nearly 6 per cent. as compared with the same month of 1914. Operating expenses, taxes and uncollectible railway revenue for the month amounted to \$4,045,981, or slightly over 3¾ per cent. more than during the same month of 1915 or more than 8¼ per cent. less than in the same month of 1914.

During the month the company spent for labor, material, supplies and other purposes \$4,221,402, of which \$3,674,996, or more than 87 per cent., was paid to individuals and industries located in the South, this sum being equal to more than 93 per cent. of the money paid to the company for transportation by those located on its lines.

The gross revenue of the Southern Railway for the first eight months of its current fiscal year from July 1, 1915, to February 29, 1916, was \$45,591,977, an increase of nearly 8½ per cent. as compared with the same period of last year and a decrease of slightly more than 5 per cent. as compared with the same period in the next previous year. Operating expenses decreased about 4¼ per cent. and 10½ per cent. in comparison, respectively.

\$900,000 May Be Spent at Chattanooga.

Expenditures for construction amounting to \$800,000 or \$900,000 are contemplated at Chattanooga by the Nashville, Chattanooga & St. Louis Railway, according to an announcement made there following an inspection of conditions by an officer of the company.

The largest expenditure in prospect is for the erection of a bridge over the Tennessee River at or near

Cravens, this to cost from \$500,000 to \$600,000, and for which the engineers of the road will immediately make a preliminary survey, including soundings of the river. The rest of the total sum that may be used is for the construction of two extensions, each to cost about \$150,000, one of them through the manufacturing sections of Alton Park and the other from Cravens, or near there, to the proposed plant of the new Chattanooga Steel Co.

Pending the erection of the bridge the company will arrange for a barge service in connection with the extension for freight service to and from the new steel mill. This latter extension will be nearly four miles long. The engineering department of the railroad company is now engaged upon preliminaries.

Memorial to W. W. Finley.

As a memorial to the late W. W. Finley, president of the Southern Railway, who was greatly interested in Southern farming, Fairfax Harrison, the president of the company, has arranged to give \$1000 to each of the State agricultural colleges in Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Kentucky and Tennessee, this to be known as "Southern Railway Loan Fund; William Wilson Finley Foundation."

Loans from the fund in each State are to be made by the college authorities to worthy students in such manner as the authorities of each college may determine, this being subject to the restriction that students receiving the benefits shall be from counties traversed by the lines of the Southern Railway or those of its associated companies.

This permanent loan fund will take the place of the four-year Southern Railway scholarships provided by Mr. Finley and which will expire at the close of the present school year.

Missouri Pacific Enters New Orleans.

The Missouri Pacific Railway announces that it has begun through freight train service to and from New Orleans and other stations on the Trans-Mississippi Terminal Railroad there south of Milepost 9 of the Texas & Pacific Railway. It is one-half owner with the Texas & Pacific Railway in the terminal railroad, which was recently opened for traffic, and it uses under a joint trackage contract the line of the Texas & Pacific Railway from Alexandria, La., to Milepost 9, where the terminal railroad begins, a distance of 183 miles. Besides the main station at New Orleans, the stations on the terminal line include Westwego, Amesville, Gretna, Harvey and Gouldsboro, La., with yards, warehouses, wharves and elevators. Through passenger service will not be established at present.

Western Maryland Railway's Gains.

The Western Maryland Railway Co.'s statement of earnings and expenses for February, 1916, shows total revenues \$800,273, increase as compared with the same month of last year \$206,060; total expenses \$544,475, increase \$71,331; net revenues \$255,798, increase \$134,728; operating income after taxes \$226,798, increase \$131,228.

The figures for the first eight months of the company's fiscal year, which began July 1 last, show total revenues \$7,099,162, increase as compared with the corresponding period of last year \$1,647,904; total expenses \$4,648,980, increase \$558,398; net revenues \$2,450,181, increase \$1,089,506; operating income after taxes \$2,228,181, increase \$1,067,506.

Baltimore & Ohio Earnings Grow.

The statement of earnings and expenses of the Baltimore & Ohio Railroad for February, 1916, shows operating revenue \$8,325,177, increase as compared with the same month of last year \$1,856,128; total operating expenses \$6,388,539, increase \$1,770,807; net operating revenue \$1,936,638, increase \$85,321.

The statement for the eight months of the current fiscal year of the company from July 1 last shows operating revenues \$72,809,768, increase \$12,716,013 as

compared with the same period of last year; total operating expenses \$50,622,251, increase \$6,939,418; net operating revenue \$22,187,517, increase \$5,776,595.

New Equipment, Etc.

Pennsylvania Lines West have ordered 25 Mikado type locomotives from the Baldwin Works, Philadelphia.

Missouri Pacific Railway has been authorized to purchase 30,000 tons of rails.

Illinois Central Railroad will, it is reported, purchase 300 stock cars.

Norfolk & Western Railway is reported preparing specifications for 30 Mallet type locomotives.

Missouri Pacific Railway has ordered 20 Mikado type and 10 heavy switching locomotives from the American Locomotive Co., New York.

Atlantic Coast Line has ordered from Baldwin's 10 Pacific type and 2 switching locomotives.

Missouri Pacific Railway will purchase 1000 freight cars of various types.

Atlantic Coast Line has ordered 15,000 tons of rails from the Tennessee Coal, Iron & Railroad Co.

Mobile & Ohio Railroad will purchase 1000 ventilated box cars.

Cumberland & Pennsylvania Railroad will purchase 50 freight cars.

Atchison, Topeka & Santa Fe Railway, according to a market report, will purchase from 75 to 100 engines.

Chicago, Burlington & Quincy Railroad has ordered 500 automobile cars from the American Car & Foundry Co., St. Louis.

Oneida & Western Railway has ordered a Consolidation type locomotive from the Baldwin Works.

\$250,000 Clayworking Plant Details.

Further details of the Maryland Clay Products Co.'s proposed \$250,000 plant at Lonaconing, Md., have been announced. They are as follows: J. W. Galloway, president, also president of the Maryland Coal Co., New York, has plans and specifications for a daily capacity of 60,000 bricks or 200 tons miscellaneous clay products, including fireproofing, hollow tile, etc. Plant is to include a 100x40-foot main manufacturing building, containing mixing pans, steamers, sewer pipe presses, shaping molds, dry presses, repress brick presses, etc., for manufacturing standard bricks; 50x50-foot frame-construction building, containing crushers, special grinding plans, screens, storage bins, hoppers, conveyors, etc., for grading and distributing rough products; frame-construction storage bins with capacity of 5000 cubic yards of clay; two-story 130x30-foot steam dryer building, containing eight tunnels, with tracks and carriages on first floor and machinery for intricate shapes and hand molds on second floor; general machine shop, locker and shower-bath building; office building, including chemical and physical laboratories; 286x66-foot main kiln, containing 22 chambers and including working-sheds, tracks, etc.; kiln heat will fire first section, heat second, steam third, etc., utilizing the energy in firing steam boilers; 40x16-foot power station, containing equipment to transform electricity, other equipment for operating machines in various departments, and steam-power boilers; 10-ton electric locomotive to handle traffic between mines and manufactory. Louis Rancke, Boston and Baltimore, is the chief engineer and architect.

The Cotton Movement.

According to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight in the first eight months of the present season to the close of March was 10,576,618 bales, a decrease under the same period last season of 2,910,032 bales. The exports were 3,991,514 bales, a decrease of 2,511,861 bales. The takings were, by Northern spinners, 2,230,007 bales, a decrease of 198,404 bales; by Southern spinners, 3,187,556 bales, an increase of 718,791 bales.

Union Manufacturing Co., Union Point, Ga., is reported as to enlarge its hosiery knitting mill.

Good Roads and Streets

SOUTHERN HIGHWAY ACTIVITIES.

Record of Week's Progress in Improvements in City and Country.

Details in regard to road and street undertakings and bond issues, briefly mentioned below, are given under the proper headings in our "Construction Department" and "New Securities," published elsewhere in this issue.

Bonds Voted.

Bolivar, Mo.—Polk county, Bolivar District, voted \$40,000 bonds to improve roads.

Columbus, Miss.—Lowndes county, Supervisors' District No. 1, voted \$40,000 bonds to construct roads.

Eastland, Tex.—Eastland county, Cisco District, voted \$60,000 bonds to construct roads.

Edmonton, Ky.—Metcalf county voted \$30,000 bonds for highway construction.

Louisburg, N. C.—Franklin county voted \$30,000 bonds for highway construction.

Morganfield, Ky.—Union county voted \$400,000 bonds to construct hard-surfaced roads.

Orange, Tex.—Orange county, Special Road District No. 2, will issue \$40,000 bonds to construct roads.

Rio Grande, Tex.—Starr county voted \$60,000 bonds to construct roads.

Bonds to Be Voted.

Caldwell, Tex.—Burleson county votes April 28 on \$100,000 bonds for highway construction.

Campton, Ky.—Wolfe county votes May 6 on \$50,000 bonds to construct roads.

Edinburg, Tex.—Hidalgo county votes April 22 on \$250,000 bonds to construct roads.

Greenville, Mo.—Wayne county votes April 29 on \$200,000 bonds to construct roads.

Mt. Pleasant, Tex.—Titus county, Winnfield Precinct, votes April 13 on \$75,000 bonds to construct roads.

Tifton, Ga.—City votes April 11 on \$15,000 bonds for street paving.

Whitesburg, Ky.—Letcher county votes May 6 on \$200,000 bonds to construct roads.

Contracts Awarded.

Baltimore, Md.—City awarded \$94,350 contract for 60,000 square yards of sheet asphalt paving with vitrified brick gutters and alley intersections.

De Land, Fla.—Volusia county awarded \$100,000 contract for road construction, \$24,648 for shell surfacing and \$31,258 for asphaltic concrete paving.

De Land, Fla.—Volusia county awarded \$595,000 contracts to construct about 58 miles of roads.

Dothan, Ala.—Houston county awarded contract for constructing 15 miles of sand-clay roads.

Houston, Tex.—Harris county awarded \$141,927.50 paving contract.

Kissimmee, Fla.—City awarded \$11,000 contract for vitrified brick paving.

Marksville, La.—Ayoelles parish awarded contract for sand-clay and gravel roads to cost \$15,000.

Maysville, Ky.—City awarded two contracts amounting to \$63,500 for paving streets with brick on concrete base and cement curb.

Olton, Tex.—Lamb county awarded contract to construct three additional miles of clay road.

Sinton, Tex.—San Patricio county, Road District No. 1, awarded \$57,796.68 contract to construct about 24 miles of gravel roads.

Contracts to Be Awarded.

Boston, Tex.—Bowie county appropriated \$81,000 to extend highways.

Bristol, Tenn.—City plans constructing concrete street at a cost of \$100,000.

Bryan, Tex.—Brazos county receives bids until April 13 to construct 85 miles of earth and gravel roads and surface 5 miles with bituminous macadam or rock asphalt.

Clarksdale, Miss.—City receives bids until April 18

for concrete paving, to include 7000 square feet of sidewalks, 1500 square feet of crossings and 200 linear feet of curb and gutter.

Franklinton, La.—Washington parish plans to construct 140 miles of highway.

Georgetown, Ky.—Scott county, which recently voted \$100,000 bonds, plans to construct 56 miles of inter-county road.

Hazard, Ky.—City will construct 1½ miles of street paving; brick, concrete or macadam.

Raleigh, N. C.—City will expend \$50,000 additional to pave streets with asphalt.

Rockville, Md.—Montgomery county plans \$40,000 expenditure for road construction.

Sebring, Fla.—City contemplates constructing 50,000 square yards of asphalt paving and 3 miles of concrete curbing.

Kentucky Road Work Progressing.

Whitesburg, Ky., April 1.—[Special.]—Gradually Kentucky is lifting herself out of the mud, and the next few years will see systems of unexcelled roadways leading into every community in the State.

Eastern Kentucky, long noted for its trails and by-paths, is awakening since the development of her vast natural resources, her extensive coal and timber fields, and is building roads, almost every county having joined in the movement. Since developments came the Eastern Kentucky section of the State has become Kentucky's wealthiest portion, and is now able to cope with the refined Blue Grass section as well as the "Pennyrile" and the Purchase. Large bond issues have been voted for road building in a majority of the counties, while the others are calling elections for that purpose, and the present year will see a large amount of good-road building in process in every section of Eastern Kentucky.

Taking the whole of the State, there are at this time over 8000 miles of road now under actual construction, about two-thirds of which is in Eastern Kentucky, this comprising the inter-county-seat roadways, roadways leading from the county-seats in the several directions toward adjoining county-seats, and the Dixie Highway and the Boone Way, leading through the counties of Bell, Knox and Whitley, the Cumberland Valley section. The organization of good-roads associations in every section of the State has brought about a new order of things.

The recent State Legislature passed a law for State convicts to do road work, and this will do great good.

Pike county is now undergoing rapid development, and has called an election for May 6, when the people will vote on a \$700,000 bond issue.

Harlan county, in the center of an extensive and rapidly-developing coal field on the upper Cumberland River, voted bonds some weeks ago to the amount of \$400,000, and with the State's fund will make \$800,000 available. Arrangements are now being completed for starting the work. It is said that the several big coal corporations, including the Wisconsin Steel Co., will contribute largely to good-roads work in Harlan county.

Some of the coal companies will build several miles of roads, while others will contribute both money and labor. This (Letcher) county is the pioneer county in Eastern Kentucky's coal fields, so far as good-roads work is concerned, having started the work about two years ago, this being the first county in Eastern Kentucky to receive State aid. As a result, several miles of splendid road are nearing completion around this city. The road work is to be further prosecuted, and an election has been called for May 6, when \$250,000 in road bonds will be voted. This, with State aid, will make \$500,000 which will be put into road work during the next 12 months. Perry county, immediately below, is completing plans to start a genuine good-roads campaign this spring. At first a bond issue for \$400,000 is practically sure to carry largely, while contributions from the different coal companies are under prospect.

Breathitt county, the home of the Kentucky River Good Roads Association, organized last year, is doing a large amount of road work, and will extend the campaign during the spring, summer and fall months.

Leslie and Knott, both inland mountain counties, having no railroads, have completed plans for a good-roads bond election early in May. Owing to an error in the call, the recent election was declared null and

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void in Leslie county, and it was necessary to call a new one.

Bell, Knox and Whitley, in the Cumberland Valley, are rushing good-roads work, having voted bonds last year. These three counties will get the Boone Way, now being constructed, and are proud of it. A fine system of roads connecting with it will extend into all parts of the counties.

Powell county is another of the live Kentucky counties now building good roads. Clark, Green, Pulaski, Trigg, Magoffin, Marion, Clinton, Graves, Ohio and Muhlenberg are among the numerous counties to lately vote bonds. Calloway county a few days ago sold \$200,000 worth of road bonds to Weil, Roth & Co., Cincinnati brokers.

Harlan county sold her bonds to the same people. Slowly but surely Kentucky is being lifted out of the mud and mire, and within a few years the State will rank among the foremost in the United States, so far as good roads are concerned.

Great Highway Project on Foot for Southwest Texas.

Corpus Christi, Tex., March 31.—[Special.]—With two generous-sized bond issues recently voted to build links in the loop, two other issues to be decided in April elections, and at least two others to be called within another 60 days, good road enthusiasts who are backing the plans for building the Diamond Loop Highway to connect the cities of San Antonio, Corpus Christi, Brownsville and Laredo are fast seeing the plans materialize.

The Diamond Loop Highway is the most pretentious modern highway project yet presented in Texas, entailing, as it does, the building of nearly 700 miles of main roads and several hundred miles of branch roads. That portion from Brownsville to Laredo gains special significance at this time, as it will be a part of the Border Military Highway, that has the backing in Congress of Senators Shepherd and Culberson and practically the entire Texas delegation in the lower House.

The Aransas Pass independent district recently showed their interest in the matter by giving a contract for 24 miles of roads at a contract price of \$60,000, and the work has already started. This will form an important link in the Diamond Loop.

Starr county on March 25 voted \$60,000 in bonds to build the highway through that county. Port Aransas on April 21 will vote on the proposal to issue bonds in an amount of \$10,000 to build the road from Port Aransas to Padre Island, a distance of 14 miles.

Hidalgo county on April 22 will vote on \$250,000 bonds to build the highway through that county. A proposal will shortly be submitted in Nueces county to build a link of the highway from Corpus Christi to Flour Bluff, a distance of 12 miles; then to build a causeway across Corpus Christi drive for a distance of three miles to Padre Island.

Along Padre Island there is a beautiful beach drive of 114 miles bounded on the east by the Gulf of Mexico. The beach is smooth, and as hard as the finest pavement, and will not require any additional work.

Brooks county, it is announced, will within another 60 days issue a call for an election to vote \$200,000 bonds for the Diamond Loop through that county. Other counties are expected to follow in similar fashion, so that it seems assured that within another eight months at least 400 miles of the great highway will be completed and open for the delight of motorists to the Texas coast and Rio Grande Valley.

Sheet Glass Plant for Kanawha City.

Manufacturing sheet glass at Kanawha City, W. Va., has been decided upon by the Toledo Glass Co., recently referred to as proposing to build in that West Virginia industrial city. This Toledo (O.) corporation will organize the Libbey-Owens Sheet Glass Co. to build and operate the plant. The latter will include the following: Two-story main building 400x500 feet; box factory 80x240 feet; power-house 80x100 feet; storage 60x100 feet; each of fireproof construction; 7 elevators; 10 conveyors; machinery to manufacture sheet glass. The De Vore-McGormley Company, Toledo, is the architect and construction engineer.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

\$30,000 Hosiery Knitting Mill.

The Jonesboro (Ga.) Manufacturing Co., mentioned in January as incorporated, will build a 100x50-foot mill and a 40x24-foot dyehouse, costing from \$6000 to \$10,000, according to plans by T. W. Woodhaus of Villa Rica, Ga. It will have a space for 100 knitting machines, but will install an initial equipment of 30 machines with 50 horse-power steam and electric power for a daily capacity of from 500 to 600 dozen pairs of hose. Sulphur black will be used and the product will be bleached and finished. About 70 operatives will be employed.

To Manufacture Aseptic Cotton Products.

The Chattanooga (Tenn.) Aseptic Cotton Co. has final plans and specifications, by Clarence T. Jones of Chattanooga, for constructing mill to replace its burned plant. This will be a 267x40-foot slow burning construction building, with brick walls and piers, concrete floors and composition asbestos roof. It will be equipped with machinery, including the electric drive, for manufacturing aseptic cotton products.

20,000-Spindle Addition.

The Swift Manufacturing Co., Columbus, Ga., has plans by J. E. Sirrine, Greenville, S. C., for its proposed addition. This will be a four-story mill construction building, to be equipped with 20,000 spindles and accompanying machinery.

\$1,889,900 FOR SOUTHERN MILLS.

Total of 76,596 Spindles and 1500 Looms Announced During First Quarter of 1916.

During the first three months of this year the Southern cotton-mill industry continued its progress, and a number of cotton products manufacturing companies were active in planning to increase their facilities. These additions for established plants will require an investment of nearly \$2,000,000, and are mainly to enable the enlarging enterprises to meet increasing demands for their output. No new organizations were sufficiently advanced to permit of announcing the extent of their proposed equipments.

The total of spindles for January, February and March is 76,596, and the number of looms amount to 1500, these equipments requiring an investment conservatively estimated at \$1,889,900. Georgia leads with 55,640 spindles and 800 looms, North Carolina following with 12,956 spindles.

Announcements for the first quarter of 1916 may be briefly summarized as follows:

Alabama.			
Name.	Location.	Spindles.	Looms.
*Fulton Cotton Mill Co.....	Athens.....	2,000	....
*Russell Manufacturing Co.....	Alexander City.....	2,000	....
		5,000	....
Georgia.			
*Cedartown Cotton & Export Co.....	Cedartown.....	8,640	....
*Meritas Mills.....	Columbus.....	25,000	200
*Muscogee Manufacturing Co.....	Columbus.....	22,000	200
		55,640	800
North Carolina.			
*Lileadown Manufacturing Co.....	Taylorsville.....	4,080	....
*Linn Mills Co.....	Landis.....	3,876	....
*St. Pauls Cotton Mill Co.....	St. Pauls.....	5,000	....
		12,956	....
South Carolina.			
*Fort Mill Manufacturing Co.....	Fort Mill.....	....	600
Texas.			
*Corsicana Cotton Mill Co.....	Corsicana.....	3,000	100
Total for first quarter of 1916.....		76,596	1,500
*Established mills increasing.			

French Broad Mill Additions.

The French Broad Manufacturing Co., manufacturer of crochet, satin and Marseilles quilts, Asheville, N. C., has completed its additions previously announced. It has added a four-story 50x100-foot reinforced concrete warehouse and a 100x200-foot two-story brick construction spinning mill. The latter is equipped with opening machinery, spoolers, pickers, 40 Saco-Lowell cards and drawing from the Saco-Lowell Company of Lowell, Mass.; 5000 spindles from the Whitin Machine Works of Whitinsville, Mass., and twistors from the Fales & Jenks Machine Co. of Pawtucket, R. I. Both buildings were contracted with T. C. Thompson & Bros. of Greenville, S. C., and Lockwood, Greene & Co., Boston and Atlanta, were the engineers.

Where American Cotton Goods May Find a New Market.

A bulletin entitled "Cotton Goods in the Straits Settlements," Special Agents Series No. 115, just issued by the Bureau of Foreign and Domestic Commerce, tells the story of how Americans have overlooked the \$14,000,000 market for cotton goods in the Straits Settlements. It is the work of Ralph M. Odell, who prepared a recent report on Chinese cotton markets.

The greater part of this report is taken up with descriptions of the kinds of goods in demand in the Straits Settlements, and there is a careful analysis of trade statistics. There are chapters on obstacles to trade, steamship lines and rates, language, currency, tariffs, etc. There is a description of the hundred or so samples that Mr. Odell collected and which are now being sent about the country for examination by manufacturers and exporters.

Textile Notes.

Opelika (Ala.) Cotton Mill will hold meeting on April 11 to vote on an increase of capital stock.

Patterson Mills Co., Roanoke Rapids, N. C., will, it is reported, add 5700 spindles.

R. J. Morrison, Cherryville, N. C., plans to establish a knit-goods mill.

Lavonia (Ga.) Cotton Manufacturing Co. has been incorporated, with \$100,000 capital, by X. Y. McCann and others.

Davis Hosiery Mills, Chattanooga, Tenn., have plans and specifications for building proposed branch mill at Attalla, Ala., a 150x60-foot brick structure having been decided upon.

Poinsett Mill Co., Greenville, S. C., organized with \$600,000 capital and officers as follows: President and treasurer, A. W. Smith of Spartanburg; secretary, C. E. Hatch; vice-president and assistant treasurer, A. G. Furman; both of Greenville. This company succeeds the Carolina Mills.

For Wooden Coat-Hanger Trade.

J. Kartun, 119 Newington Causeway, London, England:

"Send us specimen copy of your paper, with amount for annual subscription. We are open for an agency or two in a trade kindred to the lines we are now manufacturing, which are coat-hangers from wood."

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Lumber Shipments to Latin-America a Feature of the Week at New Orleans.

New Orleans, La., April 1.—[Special.]—More and more acute is becoming the car shortage situation as it affects both the pine and cypress industries in the New Orleans territory. Conferences continue with traffic officials of the railroads, and pleas continue to be forwarded to the Interstate Commerce Commission. All together, however, have accomplished little that is tangible.

Several mills reported that during the past week they had been unable to get even a single car. On only one line, the Texas & Pacific, is any easement reported. There, however, cars are not plentiful.

Local freight traffic officials of all New Orleans lines conferred on Thursday with representatives of both the pine and cypress interests. No definite action was possible, however. The officials were engaged chiefly in explaining that 150,000 cars are tied up in the terminals of the Eastern seaboard.

The net result of the conference was a pledge on the part of the railroad men to do their best, and a plea from them to all shippers not to use more cars than needful, to ask for more than actually needed, and a plea to consignees to release rolling stock at the earliest possible moment.

The British embargo on "luxuries" woods hit New Orleans exports during the past week. Liverpool took during the week only one cargo (part) of lumber, consisting of 21,000 feet of oak lumber, some staves, 6081 pieces of pine and deckload timbers. To Christiania, however, moved 15,671 pieces of mahogany, 3034 bundles of gum, 7935 gum headings, 4790 bundles of oak and some small packages of hickory.

Movement coastwise continued, with 216,000 feet of pine lumber and some small quantities of crossties, and 13,929 bundles of boxing material.

Barcelona took 22,896 feet of gum, 202,000 feet of pine, 27,000 pieces of oak and some staves.

A significant movement of the week was into Latin-America.

The first vessel of the Otis Mahogany Lumber Co., the Siskiyon, sailed for Colon with a cargo of pine lumber. She is the first of four ships to enter the Latin-American trade.

Port Barrios, Guatemala, took 10,400 bundles of boxing material; Kingston, Jamaica, 155,000 feet of pine and 1087 bundles of shooks; Port Cortez, Honduras, 6071 pine crossties; Havana, 14,000 bundles of shooks; Progreso and Tampico, 83,000 feet of pine, 1120 crossties, 2886 bundles of shooks.

Cristobal took the heaviest shipment—1,017,915 feet of pine.

Headquarters of the Southern Pine Association were busy with final details for the series of visits to Southern mills of the delegations from retailers of practically all the Middle Western and Atlantic States.

This series of tours is in the interest of the movement to educate dealers to standardization of grades and the consequent stability and reliability of pine quotations throughout the country.

Most of the delegations are so routed that they will pass through New Orleans and here be brought into touch with the central offices of the Southern Pine Association.

Entertainment is planned for these delegations. On their tours of the mills they will be the guests of the mills and of the association, in which the pine mills are leagued.

Pensacola Exports Lumber.

March exportations of lumber from Pensacola Fla., amounted to 11,235,000 superficial feet, mainly to Europe and South America, one small shipment being to Cuba. The largest single shipment was 2,447,000 superficial feet of railroad sleepers on the British steamship Commonwealth. There were 5,800,000 superficial feet of sawn timber and 5,430,000 superficial feet of lumber exported on more than a dozen vessels. In the face of the almost prohibitive freight rates prevalent, this is

considered a very good record for the port. Another item of interest is the shipment during the month of 2381 barrels of rosin. Bunker coal to the amount of 3716 tons was taken at the port for the same time.

Big Crosstie Order Secured.

Contract is reported to have been secured by the Lamb-Fish Company, Charleston, Miss., for several hundred thousand white-oak ties for the French Government. The company's mill, reputed to be the largest hardwood mill in the world, is scheduled to begin shipments about May 1, and continue them at two-month intervals throughout the year. After June the mill will operate day and night to rush the order through.

The ties will be shipped by rail from the mill to Greenwood, Miss.; thence down the Yazoo River to Vicksburg and down the Mississippi River to New Orleans. A barge line of eight barges of 5000 to 8000 ties capacity each has been established to transport the material for this, said to be the largest war order for lumber so far placed in the United States. C. L. Smith, superintendent of the Cairo, Memphis & Gulf Transportation Co., has been put in charge of the establishing and managing of the new barge line, and may be retained to keep it in permanent operation if sufficient freight can be obtained on the up-river return trip to make the line a source of saving to the company in getting its output to the New Orleans port.

Heavy Sales of Foundry Iron at Birmingham.

Birmingham, Ala., April 1.—[Special.]—Notwithstanding the fact that buyers of pig-iron have been quietly feeling their way for the past 30 days, a summarization of the total tonnage booked by the different interests of the district show that there has been some heavy buying. Records show that from 165,000 to 170,000 tons of foundry iron was booked during the month past, which is more foundry iron than was produced during the month. The base price of \$15 per ton for first half and \$15.50 per ton for last half delivery held firmly throughout the month, and at the close of the month the tendency has been strong for a 50 cents per ton advance. Production of iron, including basic iron, will show in the neighborhood of 235,000 tons for the month of March. There has been no "let-up," and the only hindrance has been in the matter of getting railroad equipment fast enough to move all the production from the block. From all present indications, by the beginning of the fourth quarter of the year at least three more furnaces will have been blown in on foundry iron. The Alabama Company is rushing repairs to its Gadsden furnace; the Woodstock Iron Co. is now vigorously investigating as to repairs necessary for the blowing in of a furnace; the Sheffield Iron Co. is also pushing investigations looking to the blowing in of a stack at Sheffield. Financial arrangements for the two last-named companies is said to be progressing satisfactorily. The blowing in of these three additional stacks will mean an increase of 20,000 to 25,000 tons of pig-iron per month for the district and State. Following are prices on pig-iron per gross ton f. o. b. cars at the furnaces.

No. 1 foundry and soft.....	\$15 50 to \$16 00
No. 2 foundry and soft.....	15 00 to 15 50
No. 3 foundry.....	14 50 to 15 00
No. 4 foundry.....	14 25 to 14 75
Gray forge.....	14 00 to 14 50
Basic.....	15 00 to 15 50
Charcoal.....	23 50 to 24 00

There has not been that activity which has been expected in cast-iron pipe circles, probably due to the extraordinary comparatively high prices. Many municipalities, after having received bids, have temporarily suspended or deferred purchasing. However, producers report that they have sufficient business in hand to insure steady operations for several months ahead. Following prices are quoted, per net ton f. o. b. cars at the works, standard pipe: Four-inch to six-inch, \$28; six-inch and up, \$25, with \$1 per ton extra for gaspipe and 16-foot lengths.

Dealers in old material report a very healthy business; in fact, better than has obtained for many months past. This is due to the fact that the low-priced pig-iron has disappeared from the yards of consumers. Much scrap is being purchased by dealers and piled on

their yards in anticipation of a substantial advance in the near future. Following prices are quoted per gross ton f. o. b. cars yards:

Old steel axes.....	\$14 50
Old steel rails.....	12 25
No. 1 steel scrap.....	12 25
No. 1 wrought scrap.....	12 25
No. 1 cast scrap.....	12 25
Heavy melting cast scrap.....	12 25
Stoveplate and light cast scrap.....	12 25
Old car wheels.....	12 25
Tram car wheels.....	12 25

There has been an actual dearth of coke in the district during the past week. Several of the iron-producing companies have had to go on the open market and purchase coke to supplement their needs at the furnace. The coke which has been moving into Mexico, but recently held up, has been speedily taken up by interests in the immediate district. It is expected that within the near future definite announcement will be made by both the Sloss Company and the Yolande Coal & Coke Co. as to the letting of contract for the erection of by-product coke ovens. The Yolande Company has blown in its 50 beehive ovens at New Connellsville, which ovens have been idle for many years past. Prices on coke are \$3 to \$3.50 for furnace or smelter coke and \$4 per ton for foundry coke.

\$1,500,000 Developments of Canton Company.

The Canton Company's president, W. B. Brooks, Baltimore, has issued an official announcement in connection with his corporation's plans for further developments for which it is issuing \$1,500,000 debenture bonds. This announcement is as follows:

"The company now owns 2½ square miles (100 acres) of land lying partly in Baltimore and partly in Baltimore county, with over a mile of water-front. Practically all of the property within the city is improved with warehouses, stores, factories and dwellings. Canton is a great manufacturing center. Located within its limits are some of the largest industrial plants in this section of the country. Ships of the largest tonnage that can enter Baltimore harbor dock directly at the company's piers. The company's property is reached directly by the Pennsylvania Railroad and the Baltimore & Ohio Railroad and indirectly by the Western Maryland Railway. The company owns practically all the capital stock of the Canton Railroad Co., which connects the deep waters of Baltimore harbor with the great trunk lines converging on Baltimore.

"The proceeds of sale of the bonds are for further improvements, for the development of the company's property, the acquisition of additional territory and improved water-front property, the construction of piers, storage warehouses, new slips, the recovery of a large acreage of land on the water-front, and for the development of additional railroad facilities."

\$400,000 Electric Steel Enterprise.

An electric steel manufacturing enterprise capitalized at \$400,000 has been organized at Charleston, W. Va. It has been incorporated as the Charleston Steel Co. and organized with officers as follows: President, H. G. Scott, president of the Virginian Power Co. treasurer, Isidore Schwabe; secretary, Edward M. Burdette; each of Charleston; vice-president, J. G. H. Hamilton of Hamilton & Hansell, engineers, New York and Stockholm, American agents for the Reenfer electric furnaces manufactured in Sweden, and representing the Swedish Government in the purchase of certain commodities in the United States. The Charleston Steel Co. has purchased and will install two electric furnaces with a daily capacity of 75 gross tons, the contracts for constructing the necessary buildings having been awarded to the American Bridge Co. of New York. Its plant will cost \$150,000, and the equipment will be mainly second-hand because of conditions making it impossible to obtain new machinery for many months. Large quantities of natural gas and electricity will be used in manufacturing steel from scrap metal, the electric power to be obtained from the Virginian Power Co. of Charleston.

John D. Wylie and W. M. Stearns, Lancaster, S. C. will establish a \$25,000 underwear knitting mill. This plant will have 30 knitting machines, bleaching, drying and finishing machinery, etc., driven by electric power.

MECHANICAL

Illustrations and descriptions having news value pertaining to developments in machinery, mechanical devices and inventions will be considered for use in this department.

Clark Meter Testers.

Late developments in Clark meter testers, manufactured by the H. W. Clark Company, Mattoon, Ill., are illustrated herewith. The two machines are claimed to constitute the most complete meter-testing outfit ever designed, accommodating all meters of every manufacture from five-eighth inch up to and including 20 inches, taking care of the various kinds of connections, male and female threaded, and flange. Where they are used in combination it is practical to use one tank and scale, placing the smaller machine on the left and the larger on the right. The smaller machine, No. 5, takes care of all up to and including two inches, and the larger all above.

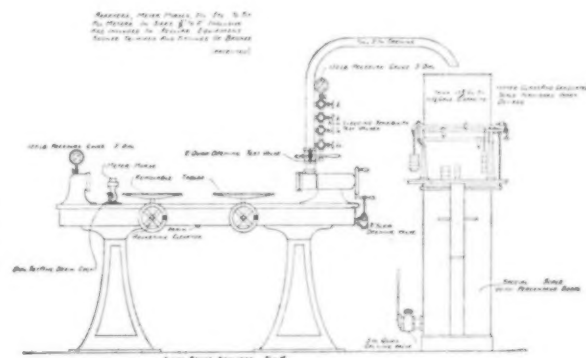
Overhead trolleys are eliminated in the use of the larger machine, as it is entirely supported by the floor. The accompanying drawing is a general layout and the details as to size of tank and scale, of inlet and outlet pipes and the adjustment features are flexible. Extreme adjustments are had through the column adjustments by means of a bevel and rack and pinion gears actuated by a hand-wheel. The lever adjustment comprises an expansion joint of special construction permitting the pipe to be moved inward and outward by means of the lever shown. With the outfit in use the short section of pipe with flange on either end, at the left of the machine, stays intact, but is made removable to take care of varying lengths of meters where it is desired on account of economy to eliminate the lever adjustment.

The elevating truck, of two tons capacity, is de-

In addition, an extensive line of meter testers is made by this company, all claimed to be right mechanically and of the highest grade of material. They are sold on a warrant of satisfaction.

Fireproofing Dwellings.

Devising improved fireproof building materials for dwellings has been given much attention by the Edwards Manufacturing Co., 411-31 Culvert street, Cincinnati, O. An accompanying illustration shows an Edwards metal Spanish tile, with special interlocking arrangement to make it water-tight against contraction and expansion. It is made 10x14 inches, of a special brand of tinplate pressed from one piece of metal, and is tin finished or Tightcote galvanized and painted a dull clay color. The galvanized tile is dipped in a bath



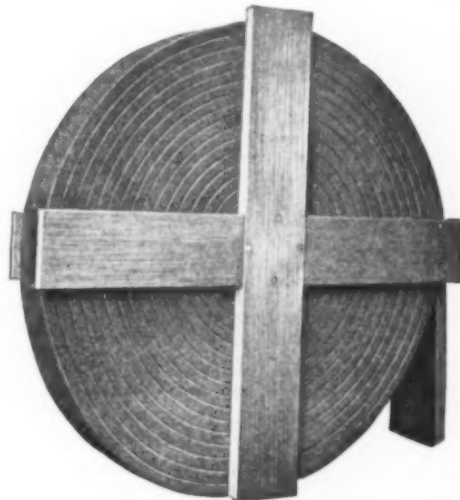
TESTER FOR 1/2 TO 2-INCH METERS.

of metallic zinc after cutting to protect raw edges. In designing this metal tile an effort was made, which the manufacturer thinks has been very well accomplished, to make it closely resemble the old Spanish clay tile in use years ago by the Moors. The metal tile is said to combine beauty and utility, and while more often applied to new roofs, is also adapted to re-covering old

proof reinforcing for exterior stucco finish or interior plaster. Besides affording added security against fire, it is said to reduce insurance rates. Booklets will be mailed on request, explaining the advantages of these materials for dwelling construction.

Prepared Expansion Joint.

Tape of various sizes made of mastic bitumen without felt or paper reinforcing and rendered, it is claimed, of sufficient cohesiveness to stand handling and storing, without affecting the elasticity necessary for expansion requirements, by a special process, the Fiber weld, has



BARRETT EXPANSION JOINT.

been put on the market as Barrett's Expansion Joint by The Barrett Company for use as expansion joint filler for concrete, brick or block pavements. The material is said to be waterproof and not injured by street acids or automobile oils, and not to become brittle with age or cold or soften with ordinary heat. The chief advantage claimed is a saving of time and labor cost in paving. The joint comes rolled ready for use, as shown in an accompanying illustration.

Haiti Wants American Manufactures.

W. Quintin Williams, St. Maro, Haiti :

"I am engineer, and general contractor and commission agent. There will be quite a boom for this country now that the convention for 10 years has been approved by the United States Senate, and as this is practically an undeveloped country a ready market will be found here for lots of new things. I keep a sample-room, and would be glad to enter into relations with manufacturers who would like to display samples, etc. Some of the articles I could readily handle are: Light tropical cotton drills; Palm Beach suits; light underwear; cheap hardwares; safety razors; cheap shirts; leggings; camp outfits; waterproof cloaks; hosiery; ironmongery; enameled wares; cheap cutlery; electric flashlights, etc. Manufacturers must be prepared to give reasonable terms. I represent quite a few firms, and they all have given reasonable terms. In this and a few of the surrounding towns I am general contractor and dealer for the United States marines now in charge of Haiti."

Naphthaline Wanted in Greece.

Kallivocas & Co., Societe Commerciale and Technique, Athens, Greece :

"Suggest to some manufacturers or exporters to wire price for 50 tons naphthaline, in spangles by preference; if there is none, then in powder in double bags of 100 kilos c. l. f. Piraeus, which is practicable, as Greek steamers sail regularly between New York and Piraeus, but on the contrary f. o. b. New York. Goods will be paid by credit through a bank at New York against shippers' documents. We should feel obliged if your friends mail us at the same time their catalogue, that we may see which other chemical products they are open to offer for our markets."

signed for extreme flexibility in its operation horizontally through the swivel wheel construction, so that a meter riding on the truck can be easily placed in its proper position for connecting, it is said. Ready adjustment vertically is had through the means of a hand-wheel operating on a series of bevel gears giving suitable vertical adjustment to care for the varying heights of meters. Two of these hand-wheels are provided to allow for convenient operation from either side. The platform of the truck is made of iron, and is claimed to be of great strength and of a smoothness that permits the easy sliding of meters thereon in use. Meters brought into the shop are unloaded on an elevated platform of a proper height to receive them and permit their easy loading by sliding onto the platform of the adjustment truck. Adapters are furnished to fit all meters. All flange connections are of slotted hole construction, so that bolts may be readily slipped in and out. Adapters are provided with eyelets, so that with the aid of a small portable lifting crane, which is furnished as a separate part of this equipment, the entire outfit is rendered a strictly one-man machine, even for testing the largest meters made.

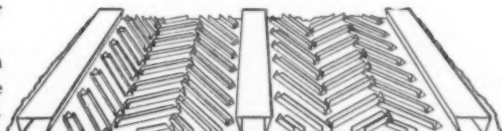
No. 3 machine is made like No. 5, five-eighths inch to two inches, except that it has but one adjusting table and is of shorter construction, accommodating one-half the number of meters in multiple that No. 5 does.

ones. No soldering is required, and no special tools, common labor being able to place it.

Edwards Keyridge, also shown herewith, is a fire-



METAL SPANISH TILE.



EDWARDS KEYRIDGE REINFORCING.

Construction Department

IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

BRIDGES, CULVERTS, VIADUCTS

Ala., Birmingham.—Birmingham Interurban Development Co., W. W. Shortridge, Secy., Hotel Empire, will erect bridges across Locust Fork and Mulberry Fork of Warrior River, in connection with construction electric railway.

Ky., Albany.—Clinton county will construct steel highway bridge of 100-ft. span over Spring Creek on Albany & Byrdstown Rd.; Est. Court, J. G. Sloan, Clerk, receives bids until Apr. 10. (See Machinery Wanted—Bridge Construction.)

La., Abbeville.—Third Ward Road Commission, D. L. McPherson, Chrmn., will construct 350 cu. yds. reinforced concrete bridges and culverts; bids until Apr. 12; W. B. Knox, Engr., Abbeville. (See Machinery Wanted—Bridge Construction.)

N. C., Burgaw.—Pender County Comms. let contract Virginia Bridge & Iron Co., Roanoke, Va., at \$18,801 to construct steel bridge across Northeast River at Lanes Ferry.

N. C., Burgaw.—Pender County Comms. let contract Virginia Bridge & Iron Co., Roanoke, Va., for bridge across Northeast Cape Fear River at Lanes Ferry; design includes fixed and draw spans; cost about \$20,000.

Tenn., Chattanooga.—Cincinnati, New Orleans & Texas Pacific Ry., C. Dougherty, Ch. Engr., Cincinnati, O., has plans for bridge to be constructed across Tennessee River to replace collapsed structure.

Tex., Franklin.—Robertson county, Precinct No. 8, will construct various bridges in connection with road work, including 200-foot bridge across Barton Branch; Road Board, W. P. Walter, Chrmn., receives bids until Apr. 5; Lamar Acker, Engr., Calvert, Tex.

Tex., Tow.—Llano County Comms., Llano, Tex., and Burnet County Comms., Burnet, Tex., engaged Herbert Schroeter, Engr., Cypress Mill, Tex., to superintend construction of bridge at Tow; both counties voted bonds. (Burnet county noted in Mch. to have \$10,000 bonds.)

Va., Harrisonburg.—Valley Turnpike Co. let Virginia Bridge & Iron Co., Roanoke, Va., to construct 3 iron bridges; cost \$21,000.

Va., Staunton.—Valley Turnpike Co. let contract Virginia Bridge & Iron Co., Roanoke, at \$21,000 to construct 3 iron bridges.

CANNING AND PACKING PLANTS

La., Westwego.—Louis Paysee, owner Westwego Ice Factory, and others will organize company with \$100,000 capital to establish cannery to can and preserve shrimps, oysters, fruits, etc.

Mo., St. Louis.—Best-Clymer Mfg. Co. will hold meeting June 6 to consider increase in capital stock from \$250,000 to \$350,000; plans to expend \$50,000 to \$75,000 of additional capital to erect plant and remainder for development purposes.

N. C., Alliance.—L. C. Smith of Williamsport, Pa., J. H. Lick of Detroit, Mich., and others, are reported as contemplating establishment of sweet potato drying plant.

Va., Vienna.—H. R. C. Sharkey may establish cannery. (See Machinery Wanted—Canning Equipment.)

CLAYWORKING PLANTS

Md., Lonaconing.—Firebrick, Fireproofing, etc.—Maryland Clay Products Co., J. W. Galloway, Pres., also Prest. Maryland Coal Co., 1 Broadway, New York, has plans and specifications for \$250,000 plant with daily capacity 60,000 bricks or 200 tons miscellaneous clay products, including fireproofing, hollow tile, etc.; 100x10-ft. main manufacturing building, containing mixing pans, steamers, sewer pipe presses, shaping molds, dry presses, repress brick presses, etc., for manufacturing standard bricks; 50x50-ft. frame-construction building, containing crushers, special grinding plans, screens, storage bins, hoppers, conveyors, etc., for grading and distributing rough products; frame-construction storage bins with capacity 5000 cu. yds. clay; 2-story 130x30-ft. steam dryer building, containing 8 tunnels with tracks and carriages on first floor and machinery for intricate shapes and hand molds on second floor; general machine shop, locker and shower-bath building; office building, including chemical and physical laboratories; 28x66-ft. main kiln, containing 22 chambers and including working sheds, tracks, etc.; kiln heat will fire first section, heat second, steam third, etc., utilizing the energy in firing steam boilers; 40x16-ft. power station, containing equipment to transform electricity, other equipment for operating machines in various departments, and steam power boilers; 10-ton electric locomotive to

handle traffic between mines and manufactory; Louis Rancke, Ch. Engr. and Mgr., Boston, Mass., and 218 E. Lexington St., Baltimore, Md.; machinery bids to be addressed to him at Lonaconing. (Noted in March as organized to build plant and wanting electrical machinery, boiler, tram and trolley systems, etc.)

Md., Frostburg.—Bricks.—Mayer Brick & Tile Co. (Henry Mayer and others), Fidelity Savings Bank, let contract Sleeman Bros. of Frostburg to erect buildings; daily capacity 25,000 building and paving bricks; has machinery. (Noted in Feb.)

Miss., Lockhart.—Bricks.—W. T. Hays is reported interested in establishment of brick plant.

Miss., Lockhart.—Jugs.—W. T. Hays is reported interested in establishment of jug factory.

Mo., St. Louis.—Clay Products.—Laclede-Christy Clay Products Co. will erect two 1-story drykilns; cost \$4000; construction by owner.

N. C., Mt. Holly.—Bricks.—Mo-Ho Brick Co., capital \$15,000, inceptd. by Geo. D. Jenkins, Mt. Holly; J. H. Walters, Gastonia, N. C.; J. S. Hoffman, Charlotte, N. C., and others.

Tex., Athens.—Tile, etc.—Athens Tile & Silo Co., capital \$1000, inceptd. by J. W. Murchison, C. W. Martin and J. F. Neff.

Va., Hopewell.—Bricks.—Hopewell Brick Co. inceptd. to establish brick plant; daily capacity, 100,000 bricks; Harold Shemwell, Pres., Birmingham, Ala.; H. K. Browning, Secy., Treas. and Gen. Mgr., Hopewell.

COAL MINES AND COKE OVENS

Ky., Hopkinsville.—Belmont Coal Co., capital \$5000, inceptd. by Sintha H. Hogg, B. D. Parker and W. G. Parker.

Ky., Middlesboro.—Low Ash Mining Co. increased capital from \$5000 to \$10,000.

Okla., Halleyville.—Texas Coal Co., capital \$35,000, inceptd. by Edw. A. Elliott of Halleyville, Thos. W. Clelland of McAlester, Okla., and G. L. Blackford of Denison, Tex.

Tenn., Whiteside.—H. B. Bonney Coal Co., Chattanooga, Tenn., organized; H. B. Bonney, Pres. and Treas.; J. H. Shaunks, V.-P.; A. McDonald, Secy.-Mgr.; develop 1300 acres blacksmith coal; present daily capacity, 50 tons; lately noted inceptd., capital \$5000. (See Machinery Wanted—Crusher (Coal).)

Va., Pulaski.—Carr Fork Corp., capital \$250,000, chartered; H. Hardway, Pres., St. Paul, Va.; K. E. Harman, V.-P., and J. F. Wysser, Secy.-Treas., both of Pulaski.

W. Va., Ottawa.—Monte Coal Co., capital \$150,000, inceptd., with Paul Hardy, Pres.; J. M. Moore, Secy.-Treas.; office in Aleshire-Harvey Bldg., 310 10th St., Huntington, W. Va.; acquired Big Eagle Coal Co. and Coal River Co.; 2 working coal mines and 1500 acres coal land in Boone and Logan counties; works at Ottawa; present daily capacity 1000 tons.

W. Va., Borderland.—Borderland Coal Co., L. E. Armentrout, Mgr., Roanoke, Va., advises will erect steel and concrete plant to replace plant reported burned; estimated cost \$100,000; No. 2 tripper, washer, bridge and conveyor were totally destroyed; contracts have been let to Pittsburgh Coal Washer Co., Pittsburgh, Pa., and to Virginia Bridge & Iron Co., Roanoke, Va.

CONCRETE AND CEMENT PLANTS

Ky., Lexington.—Builders' Supplies.—F. T. Justice & Co. purchased 1½-acre site on which to build plant; include system of trackage and bins for unloading of cement, stone, sand, etc.

COTTON COMPRESSES AND GINS

Ga., Gordele.—J. M. Duffee will establish gin.

Ga., Eastman.—C. C. Atkinson will establish gin; daily capacity 50 bales.

Ga., Savannah.—Savannah Warehouse & Compress Co. organized to build \$800,000 cotton warehouse and compress plant; let contract to Chandler & Campbell, Chattanooga, Tenn.; plant site on Savannah River 4 mi. west of Savannah; 50 compartments 75x90 ft. and 50 compartments 100x90 ft., of standard mill construction with brick walls, tar and gravel roof, concrete platforms and floors; capacity, 150,000 bales; 3 compresses (2 high

density) in sheds having 300,000 sq. ft. floor space—30,000 bales storage space; sprinkler system; let contract for wharf construction to Dave Power, Savannah; contract for rollers, tanks, etc., let to Chandler & Campbell; J. E. Sirrine, Archt.-Engr., Greenville, S. C.; plans provide for adding 3 additional units in future, increasing this original \$800,000 investment to \$2,000,000. (Noted in Mch. as inceptd. to build warehouses, install compresses, etc.)

Okla., Beggs.—Beggs Custon, Gin Co., capital \$10,000, inceptd. by Jas. B. Kelly, G. C. Moore, Al. Pendleton and L. R. Steigleder.

Okla., Madill.—Burpo Gin Co., capital \$5000, inceptd. by J. W. Burpo, H. M. Rice and Jas. K. Ross.

Tex., Calf Creek.—J. S. Thompson, Genl. Tex., will build gin; install four 70-hp. stands, etc.; cost \$7000.

Tex., Gonzales.—Farmers' Gin Co. organized with \$15,000 capital; purchased and will improve Vrazel's gin.

Tex., McKinney.—McKinney Compress Co., S. D. Heard, Pres., and Thos. E. Craig, Mgr., opens bids Apr. 15 to construct plant lately noted to be rebuilt; concrete and galvanized-iron construction; 60,000 sq. ft. floor space; install equipment for compressing and handling cotton. (See Machinery Wanted—Cotton-compress Equipment.)

Tex., Roby.—J. H. Holloway will build gin; four 80-hp. stands; boll breaker and cleaner attachments.

Tex., Seguin.—Farmers' Union Gin Co. organized with Geo. Atzger, Pres.; Herman Beutnagel, V.-P.; Ed J. Moltz, Secy.; will build gin to cost \$10,000.

COTTONSEED-OIL MILLS

Ga., Columbus.—Southern Cotton Oil Co. will enlarge plant and install additional machinery; erect brick and concrete additions for huller and linter departments; building improvements to cost \$10,000 and machinery \$20,000; also remodel plant in general.

S. C., Charleston.—Charleston Oil Co., Meeting and Mount Pleasant Sta., will hold meeting Apr. 13 to consider increase in capital from \$3000 to \$10,000.

S. C., Ware Shoals.—Ware shoals Mfg. Co. will build 2-press cottonseed-oil mill; let contract for complete design and equipment to American Machine & Mfg. Co., Greenville, S. C.

Tex., Dallas.—Cottonseed Oil Co. of Texas, Geo. Dashner (Mgr.), Chickasha, Okla., and associates, owners, will build 6-press cottonseed-oil mill; invest \$150,000; 1-story brick mill and frame warehouses; standard mill construction; let contract for complete design and equipment to American Machine & Mfg. Co., Greenville, S. C.

DRAINAGE SYSTEMS

Ark., Mound City.—Crittenden County Drainage Dist. No. 8, Chas. L. Lewis, Chrmn., engaged Morgan Engineering Co., Memphis, Tenn., as engineers for, drainage system; 5 mi. canals; estimated cost \$100,000; probably let contracts during summer; comprises 12,000 acres in Mound City, Fogelman and Marion section. (Lately noted.)

Fla., Fort Pierce.—North St. Lucie Drainage Dist. organized; comprises 75,000 acres; plans to construct drainage system; M. Hemmings and Otis R. Parker, attorneys.

ELECTRIC PLANTS

Ala., Decatur.—City has plans by Xavier A. Kramer, Engr., Magnolia, Miss., for electric light plant; estimated cost of plant \$25,000 and of wiring, poles, etc., \$15,000; probably vote within next 30 days on \$50,000 bonds. (Noted in Feb.)

Ark., Fort Smith.—Fort Smith Light & Power Co. contemplates improvements to cost \$50,000.

Ark., Rush.—Ambrose Estes considering plans for construction of electric-light plant and water-works; will install electric plant at Edith Mill.

Fla., Lake Hamilton.—The Electric Co., E. C. Stuart, Pres., Bartow, Fla., has franchise to build electric-light system.

Fla., Lakeland.—Bond Trustees let contract Southern Construction Co., Jacksonville, Fla., at \$25,340 to construct power

house, reservoir and all foundations; also let contracts for equipment and supplies for water and electric power station, including piping, conduit and wiring, valves, etc. (Lately noted.)

Fla., Tarpon Springs.—City will construct white-way system on Tarpon Ave.; G. A. Loudon will prepare detailed charts and estimates of cost.

Ga., Metter.—City voted \$8500 bonds to construct electric-light plant. Address The Mayor. (Lately noted.)

Ky., Grayson.—Grayson Light & Power Co., capital \$9000, inceptd. by J. A. Bagby, J. W. Stovall, G. W. E. Welford and others.

Ky., Hazard.—Kentucky River Power Co., Wootton & Morgan Bldg., will have plans completed and ask bids about May 1 to erect plant described in Dec.; building plans to be submitted to H. W. Saunders, Ch. Engr., Welch, W. Va.; building to consist of concrete foundations, steel skeleton bricked in, with reinforced concrete floors and roof; concrete intake and pump chamber; plant equipment purchased; includes 2 1875 K. V. A. turbo generators, 2 500 H. P. boilers, undrilled stokers, boiler feed and circulating pumps, etc.; when plans are ready will ask bids on elevators, crushers, conveyors and boiler-room bunker; prices on building material asked for about Apr. 15. (See Machinery Wanted—Building Materials.)

Ky., Horse Cave.—Horse Cave Light & Ice Co., capital \$25,000, inceptd. by J. P. Todd and others.

Ky., Lexington.—City is considering plans to install electric-light plant; J. W. Guyn, City Engr.

Ky., Pikeville.—Sandy Valley Light & Power Co., L. L. Stone, Mgr., is making improvements noted in January; changing system from D. C. to A. C.; cost about \$10,000; construction work by the company; materials and equipment are supplied.

La., Glenmora.—Company organized by S. Farnbacher of Baton Rouge, L. Livy and P. Joseph of White Castle, La., to build electric-light plant; cost \$12,000.

Md., Elkton.—American Heat & Power Co. inceptd. by Clement M. Egnor and others.

Miss., Baldwin.—City voted \$10,000 bonds to install electric-light plant and improve water-works; W. A. Stocks, Mayor.

N. C., Madison.—City asks bids until Apr. 15 to install lately-noted electric-light and power plant. Address The Mayor, Box 151. (See Machinery Wanted—Electric Plant.)

N. C., Raleigh.—City, Jos. E. Pogue, Chairman of White Way Com., will construct white way; estimated cost \$34,000; install magnetic arc type lamps on 1-light standards; ornamental luminous arcs, 500 candle-power, at 25-ft. radius; all wood poles, transformers and cables to be removed from white way district by May 15; N. L. Walker, Engr., Raleigh.

N. C., Tarboro.—City will install 500 K. W. turbine generator; cost of equipment about \$4,000 and of installation \$2000; machinery ordered. Address The Mayor.

Okla., Blackwell.—City votes Apr. 19 on \$10,000 bonds for electric-light extensions; Benham Engineering Co., Oklahoma City, Okla., Engr.; lately noted. (See Water-works.)

Okla., Verden.—Chickasha Gas & Electric Co., Chickasha, Okla., has franchise to furnish electric lighting; will construct 3-phase, 6000-volt transmission line from Chickasha to Verden, 10 mi.

S. C., Ninety-six.—City, W. W. Gaines, Mayor, voted lately-noted \$15,000 bonds to construct electric-light plant; about 1 mi. transmission; connect with line of Southern Power Co. of Charlotte, N. C. (See Machinery Wanted—Electric-light Equipment.)

Tenn., New Tazewell.—J. W. Rose and M. B. Carr of Tazewell, Tenn., interested in organization company to build flour mill with daily capacity of 200 bbls. flour, etc. (See Electric Plants.)

Ala., Bessemer.—Pipe Castings.—Central Foundry Co. leased Smith Mfg. Co.'s plant and will erect additions; install trolley system for handling products.

Ala., Gadsden.—Soil Pipe.—Coosa Pipe & Foundry Co. is reported to have purchased 5 acres adjoining plant on which to build additions.

Md., Baltimore.—Oil Engines.—Baltimore Oil Engine Co., Alfred W. Gleske, Prest., 3 German St., has plans and specifications (by Walter M. Gleske, Archt., 65 Gunther Bldg., and Henry Adams, Consult. Engr., 1261 Calvert Bldg., both of Baltimore) for 200x100-ft. building; first unit of plant for manufacturing oil engines; steel, concrete and brick fireproof construction; plumbing, ventilating and lighting system; structural steel contract let to Dietrich Bros., Baltimore; install machinery for building internal combustion oil engines, 5 to 1000 H. P.; selected bidders on building as follows: Consolidated Engineering Co., 243 Calvert Bldg.; Morrow Bros., Fidelity Bldg.; West Construction Co., Knickerbocker Bldg.; Price Concrete Construction Co., 225 St. Paul St.; Cogswell-Koether Co., 406 Park Ave.; Piel Construction Co., 2519 Edmondson Ave.; B. F. Bennett Building Co., 123 S. Howard St.; H. D. Watts Co., Calvert and German Sts.; C. E. Stubbs, Equitable Bldg.; Chesapeake Contracting Co., 1217 Riverside Ave.; Wm. Ferguson & Bro., 214 Clay St.; Richard H. Frazier & Son, 224 W. Mulberry St.; Willard E. Harn Co., 213 N. Calvert St.; Thomas B. Standfield & Co., 212 Clay St.; John Hiltz & Son, 7 Clay St.; Chas. L. Stockhausen Co., Marine National Bank Bldg.; all of Baltimore. (Previously noted inceptd. with \$1060 capital to build plant, etc.)

Mo., St. Louis.—Water-purifying Machines. Federal Pure Water Co., capital \$100,000, inceptd. by Jos. L. Kealty, Wm. Preston Hill, Wm. L. Moore and others to manufacture electric machines for purification of water.

N. C., Charlotte.—Electrical Machinery.—Charlotte Electric Repair Co., 508 W. Fourth

St., will build plant to repair and rebuild electrical machinery.

Va., Norfolk.—Gas Machine.—Dubols Gasifier Corp., capital \$15,000, chartered; J. P. Andre Moita, Prest.; Geo. A. Dubols, V. P.; W. L. Remm, Secy.

GAS AND OIL ENTERPRISES

Ala., Anniston.—Gas Plant.—Alabama Light & Power Co. will erect addition; 2 stories; brick; 50x50 ft.; let contract Landt Bros. of Anniston.

Ala., Montgomery.—Alabama-Louisiana Oil & Gas Co., capital \$6000, inceptd. by W. R. Waller, T. W. Weaver, D. G. Garrett and others.

Ark., Fort Smith.—Pipe Line.—E. H. Crowe of Van Buren, Ark., and others let contract National Tube Co. of Pittsburgh, Pa., to construct pipe line from Kibler field; total cost \$55,000 to \$60,000; Bell Engineering Co., Engr., Van Buren, Ark.

Ark., Fort Smith.—Clear Creek Gas & Oil Co. let contract Hope Engineering Co. of Tulsa, Okla., to construct pipe line from Kibler oil field to South Fort Smith; construction to cost \$40,000 to \$50,000; pipe to cost about \$100,000; pipe line to be 13 mi. long; 10-in. steel pipe; daily capacity 270,000 cu. ft.

Ark., Fort Smith.—Pipe Line.—Twin City Pipe Line Co., capital \$150,000, inceptd.; W. R. Martin, Prest.; E. S. Creekmore, V. P.; W. J. Echols, Treas.; Thos. L. Dailey, Secy.; plans to construct pipe-line gas wells in Kibler field to Fort Smith via Van Buren.

Md., Baltimore.—Lubricating Oils, etc.—Robinson Oil Corp., authorized capital, \$3,000,000, inceptd.; consolidates Wm. C. Robinson & Sons Co., Baltimore, Pittsburgh Oil Refining Co. and Pittsburgh Pipe Line Construction Co., both of Pittsburgh; owns extensive plants for piping petroleum from Pennsylvania, refining oil for gasoline, transporting oil by tank cars, manufacturing lubricating oils, etc.; Baltimore offices at 32 South St.

Md., Elkton.—Arkano Oil Co., capital \$50,000, inceptd. by Clement M. Egnor and others.

N. C., Kinston.—Gas Plant.—Empire Gas Improvement & Construction Co. of New York and Minneapolis, Minn., applied for franchise to build gas plant.

Okla., Atoka.—Helen Dale Oil & Gas Co., capital \$10,000, inceptd. by Jas. Hudspeth, D. H. Linebaugh and Robt. M. Rainey.

Okla., Ardmore.—Steiner-Sykes Oil Co., capital \$50,000, inceptd. by R. L. Steiner, C. E. Sykes and Ernest Hendon.

Okla., Bartlesville.—Oil Refinery.—Chas. Vought and W. A. Schoenfeld of Bruin, Pa., are reported as considering erection of refinery.

Okla., Bristow.—Mussetter Royalty Co., capital \$11,000, inceptd. by R. E. Burks, L. G. Lenker and W. O. Mussetter.

Okla., Francis.—Mascho Oil Co., capital \$5000, inceptd. by G. D. Mascho of Francis, Jas. A. Mascho and E. B. Mascho of Ada, Okla.

Okla., Oilton.—Oil Refinery.—Oilton Refining Co., capital \$4000, inceptd. by V. E. Bolene of Oilton, C. D. Webster and D. B. Merry of Yale, Okla.

Okla., Marietta.—Oklatex Oil & Gas Co., capital \$50,000, inceptd. by Simon Westheimer, F. B. Conrad and R. H. Haynes.

Okla., Nowata.—Henderson Oil Co., capital \$10,000, inceptd. by F. C. Henderson, J. Wood Glass and A. Dean.

Okla., Oklahoma City.—Killarney Oil & Gas Co., capital \$5000, inceptd. by Benj. H. Easton and W. R. Haskell of Oklahoma City and W. R. Eaton of Muskogee, Okla.

Okla., Oklahoma City.—Lucky Tiger Oil & Gas Co., capital \$150,000, inceptd. by H. M. Hand, F. D. Northrup and Jas. Brazell.

Okla., Tonkawa.—Tonkawa Oil & Gas Co., capital \$50,000, inceptd. by A. J. Esch, E. R. Green and M. Schonwald.

Okla., Tulsa.—Dunlop Oil & Gas Co., capital \$24,000, inceptd. by Robt. Dunlop of Tulsa, E. B. Howard of Oklahoma City and C. K. Dawson of Tonkawa, Okla.

Okla., Tulsa.—Ferrell Oil Co., capital \$5000, inceptd. by M. Q. Charles, R. A. Stokell and H. B. Martin.

Okla., Tulsa.—Two Oil & Gas Co., capital \$25,000, inceptd. by C. R. Stanton of Sapulpa, W. S. Goodrich and W. H. Burk of Kansas City, Mo.

Okla., Tulsa.—Flora Hope Oil & Gas Co., capital \$60,000, inceptd. by E. B. Howard of Oklahoma City, Robt. Dunlop of Newkirk, Okla., and C. K. Dawson of Tonkawa, Okla.

Okla., Tulsa.—Travis Oil Co., capital \$10,000, inceptd. by S. R. Travis, Ray S. Fellows and H. J. Rosenberg.

Okla., Walter.—Lincoln Valley Oil & Gas Co., capital \$15,000, inceptd. by D. B. Malernee, R. M. Southard, A. C. Cronin and others.

S. C., Greenville.—Gas.—Southern Public Utilities Co., Z. V. Taylor, Prest., Charlotte, N. C., will install coke gas plant on Piedmont & Northern Rty.; cost \$45,000.

Tex., Bangs.—Bangs Oil & Development Co., capital \$15,000, inceptd. by H. P. Rutherford, N. P. Robertson, T. A. Read and others.

Tex., Beaumont.—McCall Production Co., capital \$125,000, inceptd. by Chas. W. Abbott, Newton Brown and John D. McCall.

Tex., Cleburne.—Hope Oil Co., capital \$3000, inceptd. by H. L. Ryan, J. J. Ryan and E. C. Vickery.

Tex., Fort Worth.—Hefley Coal Co., capital \$10,000, inceptd. by W. J. Hefley, W. C. Guffey and J. B. Wray.

Tex., Houston.—Model Oil Co., capital \$40,000, inceptd. by Robt. C. Kerr, Robt. K. Adamson and Geo. R. Langley.

Tex., Houston.—Houston-Barber's Hill Oil Co., capital \$40,000, inceptd. by Carey Towell, G. W. Hindman and Henry Jahn.

Tex., Houston.—Creek Shore Oil Co., capital \$30,000, inceptd. by B. A. Phillips, J. C. Thompson and B. F. Orr.

Tex., Houston.—Kellersberger Oil Co., capital \$12,000, inceptd. by A. C. Kellersberger, J. M. Winfrey and J. T. Browning.

Tex., Houston.—Midfield Oil Co., capital \$5000, inceptd. by J. McMurtry, W. L. Massee and Ben J. Barrow.

Tex., Wichita Falls.—Avis Wood Oil & Refining Co. changed name to Avis Refining Co. and increased capital from \$100,000 to \$150,000.

Tex., Yoakum.—Yoakum-Humble Oil Co., capital \$10,000, inceptd. by J. Lyons, W. E. Stapp and M. C. Driscoll.

W. Va., Huntington.—American Oil & Gas Co., capital \$5000, inceptd. by C. F. Cunningham, P. L. Williams, J. J. Rourke and others.

W. Va., Morgantown.—Beaver Oil Co., capital \$10,000, inceptd. by Morris L. Clovis, Percy J. Beaumont, D. M. Willis, Glenn Hunter and O. V. Johnson.

W. Va., Raleigh County.—Coal River Oil Co., capital \$15,000, inceptd. by E. C. Laughner, M. C. Rodgers, Jas. Kiefer and others, all of Pittsburgh, Pa.

HYDRO-ELECTRIC PLANTS

Md., Elkton.—Orlando Water Power Corp. inceptd. by Clement M. Egnor of Elkton, Norman P. Coffin and Herman E. Latter of Wilmington, Del.

Mo., Springfield.—Ozark Power & Water Co. has plans for improvements to cost \$300,000; supplies Springfield and other cities in Southwest Missouri with hydro-electric power from plant on White River.

ICE AND COLD-STORAGE PLANTS

Ky., Horse Cave.—Horse Cave Light & Ice Co., capital \$25,000, inceptd. by J. P. Todd and others.

Miss., Hattiesburg.—Armour & Co. (main office, Chicago, Ill.) will build cold-storage plant.

S. C., Bishopville.—Consumers' Ice & Fuel Co., capital \$10,000, inceptd. by H. H. Woodward, W. R. Scarborough, W. M. Reid and J. S. Corbett.

Tenn., Knoxville.—Swift & Co. (main office, Chicago, Ill.) will build plant; 2 stories and basement; 35x110 ft.; install refrigerating plant; Earl T. Robinson, Local Mgr.

Tex., Commerce.—Consumers' Ice Co., capital \$30,000, inceptd. by B. A. Phillips, J. C. Thompson and B. F. Orr.

Tex., Greenville.—Greenville Ice & Fuel Co., capital \$15,000, inceptd. by F. N. Hopkins, C. M. Portwood and F. M. Hodges.

Tex., Lockhart.—Citizens' Water, Light & Power Co. will build ice plant, electric-light system and water-works; install 30-ton ice machine; erect concrete and brick house for ice and light plant; Henry E. Elrod, Consult. Engr., 907 Southwestern Life Bldg., Dallas; noted in Feb. (See Machinery Wanted—Water-works, etc.)

Tex., San Antonio.—Swift & Co. (main office, Chicago, Ill.) are reported to repair burned building; cost \$3500.

Va., Charlottesville.—Sea Food Market, 415 E. Main St., will install refrigerating machinery. (See Machinery Wanted—Refrigerating Machinery.)

IRON AND STEEL PLANTS

Ala., Anniston.—Iron Furnaces.—Woodstock Iron Co., J. S. Carrington, trustee, is reported to blow in its furnaces; financed by New York capitalists.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Va., Hopewell—Steel Plant.—Walter Sachs, Petersburg, Va., is reported to have announced that Richmond capitalists and interests connected with the Norfolk & Western Ry. will build \$2,000,000 steel plant.

W. Va., Charleston—Electric Steel Furnaces.—Charleston Steel Co., authorized capital \$400,000, inceptd.; Prest., H. G. Scott, Prest. of Virginian Power Co.; Treas., Isidore Schwabe; Secy., Edw. M. Burdette; each of Charleston; V. P., J. G. H. Hamilton of Hamilton & Hansell, New York and Stockholm, American agent for Rennerfelt electric furnaces manufactured in Sweden; purchased and will install 2 electric furnaces with daily capacity 75 gross tons; let contracts to American Bridge Co., 30 Church St., New York, to construct buildings; plant cost \$150,000; equipment mainly second-hand, new machinery not being obtainable for many months; use large quantity natural gas and electricity; manufacture from scrap metal; electric power from Virginian Power Co.

LAND DEVELOPMENTS

Ark., Newport.—Jackson County Pecan Farms Co., capital \$400, inceptd. by C. E. Carroll, M. A. Stevens, G. L. Smith and Garland Hunt.

Fla., Jacksonville.—Middleburg Development Co., capital \$100,000, inceptd.; J. W. Busard, Prest.; W. D. Pitchford, V. P.; J. M. Longston, Secy.-Treas.

La., Lafayette.—City votes May 2 on \$15,000 bonds for public park. Address The Mayor.

Md., Baltimore.—Canton Company, W. B. Brooks, Prest., Water and Commerce Sts., makes official announcement as follows: Issue \$1,500,000 bonds; proceeds for further improvements to develop property, acquire additional territory, improve waterfront property, recover large acreage on waterfront, build piers, construct slips, erect warehouses, develop additional railroad facilities, etc.; now owns 2½ sq. mi. (1600 acres) land, partly in Baltimore and partly in Baltimore county, with more than 1 mi. of waterfront; practically all within city, improved with warehouses, stores, factories and dwellings; owns practically all capital of Canton Railroad Co., connecting deep waters of harbor with Pennsylvania, Baltimore & Ohio and Western Maryland railways. (Lately noted to issue \$1,500,000 bonds for further improvements, etc.)

Tenn., Cleveland.—Chas. Frank and Eugene Gillespie of Chattanooga, Tenn., purchased farm and will subdivide into suburban home sites.

Tex., Houston.—City will expend \$30,000 for improvements at Hermann Park, to include cleaning, grubbing, roadway construction, etc.; also \$5000 to grade grounds at North and South Junior High Schools; Ben Campbell, Mayor.

Tex., Humble.—Humble Cemetery Co. incorporated by Mrs. F. K. Wise, Mrs. A. J. Smith and Mrs. M. Westbrook.

Va., Chester.—Chester Development Co., capital \$50,000, inceptd.; F. P. Fuller, Prest.; A. C. Buchanan, Secy.-Treas.

Va., Norfolk.—Lee Counselman will develop 40-acre tract north of Tanner's Creek for home sites; expend \$30,000 to \$40,000.

Va., Norfolk.—Williamsburg Development Corp., capital \$25,000, chartered; C. A. Mowry, Prest.; F. M. Smith, Jr., Secy.-Treas.

W. Va., Huntington.—Westview Land Co., capital \$25,000, inceptd. by S. J. Price, John N. Kinney, W. A. Lucas and others.

W. Va., Kenova.—Woodmont Cemetery Co., capital \$10,000, inceptd. by Jos. S. Miller, T. N. Goff, W. R. Wilson and others.

LUMBER MANUFACTURING

Ala., Birmingham.—Bobb Lumber Co., capital \$4000, inceptd.; Lloyd G. Bowers, Prest.; J. M. Gillespie, V. P.; W. A. Hoene, Secy.-Treas.

Ala., Tallassee.—Hooper Lumber Co. organized; L. M. Hooper, Prest.-Treas.; J. A. Reid, V. P. and Gen. Mgr.; R. L. Somerville, Secy.; purchased pine timber land and will build mill; offices at Selma, Ala.

Ark., Sparkman.—Arkadelphia Milling Co., Arkadelphia, Ark., will install hardwood sawmill of 35,000 ft. daily capacity and construct railroad from Sparkman west across Ouachita River into Clark county.

Ark., Varner.—J. S. Enigh of Pine Bluff, Ark., will install sawmill; remove equipment from Harwood; daily capacity 20,000 ft.; purchased 2160 acres timber land.

Fla., Bartow.—E. T. Roux & Son, Plant City, Fla., purchased 35,000 acres timber land in Polk county; will expend \$75,000 to \$100,

000 to erect sawmill, install machinery, etc.; locate mill at Lake Ann, east of Bartow; also construct 20 to 30 mi. railroad.

Fla., Paxton.—Florida Sawmill Co., W. D. Johnston, Pittsburgh, Pa., Presta and J. T. Hughes, Mgr., will erect \$25,000 building to replace destroyed structure; semi-fireproof; construction commenced.

Ga., Mineola.—Fender Lumber Co. will rebuild planing mill and drykiln reported burned.

La., New Orleans.—Freiberg Lumber Co., Cincinnati, O., will erect saw and veneer mill for cutting mahogany timber; has purchased machinery.

Md., Elkton.—Acme Lumber Co., capital \$36,000, inceptd. by Clement M. Egner and others.

Miss., Hattiesburg.—Bollinger-Franklin Co. of Shreveport, La., purchased timber rights on property in Attalla, Winston, Neshoba and adjoining counties; build sawmill in Attalla county.

Mo., Fredericktown.—Jas. L. Noel of St. Louis purchased 2000 acres timberland in Madison county and is reported to develop.

Mo., St. Louis.—F. W. Hanpeter Furniture Co. will erect 1-story drykiln to cost \$3475; C. A. Welsh & Co., Contr., St. Louis.

N. C., Dundarrach.—Hoke Lumber Co., capital \$50,000, inceptd.; W. J. Johnson, Prest.; W. E. Garrett, V. P.; H. G. McIntosh, Secy. and Mgr.; all of Red Springs, N. C.; will install sawmill machinery.

N. C., Elizabethton.—Lexington Lumber Co., Lexington, N. C., capital \$25,000, inceptd.; R. L. McCrary, Prest.; E. C. Stokes, V. P.; W. O. Burgin, Secy.; R. M. Stokes, Mgr.; has purchased sawmill equipment; manufacture pine and hardwood lumber.

Okla., Commerce.—T-C-H Mining Co., capital \$80,000, inceptd. by Lon Roberts of Commerce, Harry S. Truman of Grandnair, Mo., and Jerry Culbertson, Kansas City, Mo.

Tenn., Dresden.—Pinkston Milling Co. (M. L. Pinkston interested) will rebuild sawmill lately noted burned; open machinery bids Apr. 1; install saws, belts, etc.; daily capacity 10,000 ft. (See Machinery Wanted—Sawmill Equipment.)

Tenn., Paris, R. F. D. No. 3.—Pillow & Son will rebuild plant lately noted burned; erect small fireproof building.

W. Va., Huntington.—Ohio Valley Lumber Co., capital \$10,000, inceptd. by Frank W. Riggs, Floyd S. Chapman, W. G. Lemley and others.

METAL-WORKING PLANTS

Fla., Jacksonville.—Metal Specialties.—Southern Sheet Metal Specialty Co., capital \$5000, inceptd.; Mark G. Ray, Prest.; J. W. Anderson, V. P.; Jas. H. Coons, Secy.-Treas.

Md., Baltimore.—Tinplate.—Baltimore Sheet & Tinplate Co., J. M. Jones, V. P. and Gen. Mgr., purchased by Bethlehem Steel Co., E. G. Grace, Prest., Bethlehem, Pa.; plans building plant 3 times larger than originally proposed, which was 1,000,000 base boxes tinplate of 100 lbs. each annually; plant site covers 10 acres in Baltimore suburb; may change location and build at Sparrows Point; original plans call for 12 and eventually 24 hot mills, with intermediate and finishing departments, facilities for cold-rolling, pickling, annealing, tinning, etc., driven by 3000 to 3500 electrical horse-power; products to include black sheet for automobiles and polished blue sheets for stoves. New plan probably provide \$4,500,000 capitalization and 36 mills. Mr. Grace wires the Manufacturers Record that it will be some time before any definite plan can be announced. (Recently noted organized, etc.)

MINING

Ark., Fort Smith.—Smelter.—Wildcat Gas Co. is reported to build smelter.

Ark., Fort Smith.—Smelter.—Clear Creek Gas & Ore Co. is reported to build smelter.

Ky., Livermore.—Greencastle Good Roads Stone Co., capital \$8000, inceptd. by T. D. Renfrow and others.

Ky., Louisville.—Stone.—Stephensburg Stone Co., capital \$15,000, inceptd. by James Hartlage, John W. Hartlage and J. Frank Moors.

Ky., Marshall.—Clay.—Paducah Clay Co., Fraternity Bldg., Paducah, Ky., H. R. Lindsey, Prest. and Mgr. (lately noted increasing capital stock from \$12,000 to \$100,000), develops about 300 acres; plant equipped; daily capacity 2 cars; install additional machinery later; product, raw clay for till, crucible, wad and sagger; will build about 3 mi. track, tram or standard gauge. (See Machinery Wanted—Mining (Clay) Machinery.)

Ky., Winchester.—Limestone.—S. H. Rutledge and W. P. Moberly will develop limestone quarries.

Mo., Chitwood.—Concentrating Plant.—E. R. McClelland and others will build concentrating plant.

Mo., Duenweg.—Concentrating Plant.—Champion Mining Co. will build 150-ton concentrating plant; Chas. Aldrich, Contr., Duenweg.

Md., Elkton.—Zinc.—LaSalle Zinc Corp., capitalization \$150,000, inceptd. by Clement M. Egner and others.

Md., Salisbury.—Granite.—Salisbury Corp., capital \$25,000, inceptd. by Scott S. Baker, Clarence J. Jacobs and Harry W. Davis, all of Wilmington, Del.

Mo., Seneca.—Tripoli.—Seneca Tripoli Co., N. P. Rood, Prest., Box 474, Joplin, Mo., develops 120 acres; daily output 2 cars tripoli rock; machinery supplied; manufactures tripoli filter stones and tripoli flour for polishing and buffing compounds. (Lately noted inceptd., capital \$60,000.)

N. C., Mt. Airy.—Granite.—R. D. Clark Granite Co., capital \$25,000, inceptd. by R. D. Clark, R. M. Simmons and J. A. Deatherage.

Okla., Henryetta.—Zinc Smelter.—Picher Lead Co. of Joplin, Mo., will build zinc smelter to cost \$225,000 to \$250,000; use gas for fuel.

Okla., Miami.—Concentrating Plant.—Picher Lead Co. will build ore-concentrating plant; capacity 1 ton crushed rock per min.

Okla., Nowata.—Cheney Mining Co., capital \$10,000, inceptd. by H. G. Cheney, H. W. Reed and J. E. Banks.

Tex., Abilene.—Gold and Silver.—Silver King Mining Co. inceptd. with S. P. Moore, Prest.; W. N. Moore, Secy.; mine gold and silver in Burnett county.

Tex., Austin.—Sulphur.—West Texas Sulphur Co. inceptd. by Clement M. Egner of Elkton, Md.; Herbt. E. Lutter and Norman P. Coffin of Wilmington, Del.

Tex., Gainesville.—Gravel.—Gainesville Gravel Co., capital \$60,000, inceptd. by J. F. Morris, J. H. Midkiff and J. Fred Smith.

MISCELLANEOUS CONSTRUCTION

Ark., Yancopin.—Revetment.—Missouri Pacific Ry., E. A. Hadley, Ch. Engr., St. Louis, Mo., let contract Miller Engineering Co. of Little Rock for work on revetment and pile dikes near Yancopin; cost about \$100,000.

Fla., Daytona.—Seawall, etc.—City Commrs. (C. M. Bingham and others) contemplate following improvements: Seawall from foot of Magnolia Ave. and another from foot of Orange Ave. to City Island; channel 60 ft. wide and 6 ft. deep from foot of Magnolia Ave. to main channel of Halifax River; widen present channel from city dock and Yacht Club to main channel to width of 50 ft.; use dredge material to fill between the 2 seawalls, Beach St. and present City Island; fill and present City Island to be made site for new city buildings, park, playground, library, etc.; detail plans not yet made.

Fla., St. Petersburg.—Retaining Wall.—City will construct concrete retaining wall from concrete bridge on 9th St. along south bank of Booker Creek for 270 ft.; City Commrs. receive bids; opened April 3; W. F. Divine, City Clerk. (See Machinery Wanted—Retaining Wall.)

Ga., Savannah.—Seawall.—J. W. Fitzgerald, Jr., Savannah, has contract at about \$65,000 to construct seawall at Jekyll Island.

Mo., Jefferson City.—Dike.—Government let contract Dewitt & Stobe of Glasgow, Mo., at \$63,700 to construct 4350 ft. standard 3-row dike on Missouri River, about 5 mi. from Jefferson City. (Call for bids noted in February.)

Tex., Fort Worth.—Levee.—Tarrant county will vote on \$35,000 bonds to close all gaps and complete levee; R. G. Johnson, W. B. King and J. J. Lydon are Levee Commrs.

Tex., Galveston.—Pier.—Robt. A. Lyons, Jr., Fred Aves and Ed Slazmann will build fishing and pleasure pier at foot of Sixth St.; extend into water 500 ft.; dance hall, etc.; cost \$4000 to \$5000.

Tex., Houston.—Wharf.—City invites bids until Apr. 23 to construct wharf No. 4 at Houston turning basin; reinforced concrete; 120x780 ft.; also steel-frame crane-way shed at wharf; separate bids for each of above; E. E. Sands, City Engr.; lately noted. (See Machinery Wanted—Wharf Construction.)

MISCELLANEOUS ENTERPRISES

Ala., Fort Deposit.—Hardware.—Fort Deposit Hardware Co., capital \$3000, inceptd. by J. L. Glass, L. P. Glass, S. P. Glass and J. F. Glass.

Fla., Jacksonville.—Electrical Supplies.—Florida Electric Supply Co., capital \$150,000,

inceptd.; G. C. Henry, Prest.; Lake James V. P.; Nelson C. Overton, Secy.-Treas.

Fla., Jacksonville.—Laundry.—W. E. Rozzele, Thos. E. Nunn and T. B. Christian of Jacksonville and T. D. Palmer of Syracuse, N. Y., will establish laundry; secured Eagle Laundry and will install machinery operated by electricity.

Fla., Pensacola.—Transfer.—City Transfer Co., capital \$5000, inceptd.; Matt M. Bird, Prest.; M. D. Merritt, Secy.-Treas.

Fla., Pensacola.—Ship's Ways.—W. R. Faris and others plan to construct ship's ways at foot of Alcaniz St. between Cedar and Magnolia Sts.

Fla., Tallahassee.—Electrical Supplies.—Dixie Supply Co., capital \$500, inceptd.; H. William Brown, Prest.; Edw. H. Hopkins, V. P.; J. Neal Bradford, Secy.-Treas.

Ga., Augusta.—Printing.—Augusta Chronicle Publishing Co. will rebuild daily newspaper printing plant and office structure lately noted burned; details not determined; now occupying temporary plant.

Ga., Augusta.—Contracting.—Atlantic Construction Co., 550 Broad St., capital \$15,000, organized by D. G. Zeigler, Robt. Chestnut and Wm. M. Chapman; co-partnership; general contracting. (See Machinery Wanted—Building Materials, etc.)

Ky., Hopkinsville.—Tobacco Frizery.—Weymann-Bruton Tobacco Co. will erect brick tobacco-priming plant and storage warehouse.

Ky., Louisville.—Teaming.—Star Teaming Co., capital \$3000, inceptd. by Allan G. Brack, C. Bright Allison, Jr., and Jas. B. Hedden.

Ky., Morehead.—Hall Bros. Melting Co., capital \$7500, inceptd. by W. T. Hall and others.

La., Lafayette.—Fire Protection and Alarm System.—City votes May 2 on \$20,000 bonds for fire protection and alarm system. Address The Mayor.

La., New Orleans.—Garbage Incinerator.—City will build incinerator on Newton St., Brooklyn and River St. in Algiers of type manufactured by Decarie Incinerator Co.; A. G. Ricks, Commr. of Public Finances, Accounting Div., receives bids until Apr. 11. (See Machinery Wanted—Incinerator.)

Mo., Kansas City.—Laundry.—Dunlop Cast Supply Co., 217 W. 14th St., let contract Clarke Construction Co., Kansas City, to remodel building; cost \$20,000; fireproof construction; plans by C. M. Williams, Kansas City; install laundry machinery costing \$10,000. (See Machinery Wanted—Laundry Machinery.)

Mo., St. Louis.—Electrical.—Doxsee Electrical Co., capital \$10,000, inceptd. by Arnold & Doxsee, Ida J. Doxsee and Leight Doxsee.

Mo., St. Louis.—Optical.—Merry Optical Co., capital \$50,000, inceptd. by Fred C. Merry, Chas. L. Merry and Chas. N. Sheldon, all of Kansas City, Mo.

Mo., St. Louis.—Publishing.—Western Watchman Publishing Co., capital \$35,000, inceptd. by Edward J. Dunne, Mrs. Stella E. Sen and Mrs. Henrietta Macdonald.

Mo., St. Louis.—Printing.—Geo. W. Buschmann will erect 31-ft. 8-in. by 85-ft. printing plant building at 221-223 N. 3d St.; slow-burning construction; gravel roof; cost \$18,000, without mechanical equipment; heating plant cost \$1000; elevator cost \$1500; Leo K. Milberger, 3426 California Ave., Archt. and Contr.

Okla., Oklahoma City.—Publishing.—Employer Publishing Co., capital \$10,000, inceptd. by Harry V. Kahle, Harvey W. Ferguson and Loyal N. Hayes.

S. C., Charleston.—Engineering.—Dawson Engineering Co., capital \$5000, inceptd. by E. D. Clement and Louis Y. Dawson.

Tenn., Nashville.—Industrial Building.—Thos. Deaderick and others secured 6-story building to be occupied by small industrial plants; will furnish elevator service, electric power, including wiring for motors; electric light, heat, telephones, water, etc.

Tex., San Antonio.—Publishing.—Express Publishing Co. will build addition; fireproof construction; site has 46-ft. frontage.

Va., Norfolk.—Industrial Building.—Lowenberg estate will rebuild Progress Bldg. lately noted burned at loss of \$40,000.

Va., Norfolk.—Contracting.—McGuire Construction Co.'s interests purchased by Jas. F. Wrenn, its V. P. and Gen. Mgr., who will continue under the old name, with Mr. Wrenn as Prest.

W. Va., Huntington.—Ice Delivery.—City Ice Delivery Co., capital \$25,000, inceptd. by F. B. Enslow, H. C. Duncan, Jr., J. M. McCoach and others.

MISCELLANEOUS FACTORIES

D. C. Washington—Bakery.—Holmes & Son, 107 F St. N. W., Lewis Holmes, Pres., and Leon S. Ulman, Mgr., will erect lately noted building at cost of \$50,000; concrete and steel; 75x140 ft.; plans by C. D. Cooley Co., Pittsburgh, Pa. (and 630 1st St. N. W., Washington); installing machinery to manufacture bread, pies and cakes. (See Machinery Wanted—Boilers; Electrical Equipment.)

Fla., Jacksonville—Food Products.—Table Products Co., capital \$30,000, inceptd.; Walter C. Warrington, Pres.; Chas. A. Green, V.-P.; David Warrington, Secy.-Treas.

Fla., Jacksonville—Naval Stores.—Hagan Naval Stores Co., capital \$50,000, inceptd.; L. P. Hagan, Pres.; D. H. McMillan, V.-P.; M. McMillan, Secy.-Treas.

Fla., Jacksonville—Pianos.—Seminole Piano Mfg. Co., capital \$40,000, inceptd.; W. A. Barfield, Pres.; J. H. Barfield, V.-P.; L. Smoak, Secy.-Treas.

Fla., Jacksonville—Overalls, etc.—Chas. Colyer, 289 Post St., contemplates organization company to manufacture overalls and trousers. (See Machinery Wanted—Overall and Trousers Machinery.)

Fla., Pinellas Park—Corrugated Fiber Products.—Universal Box Co. organized; P. J. McDevitt, Pres.; L. A. DeGrasse, V.-P.; H. E. Wendell, Secy.-Treas.; will manufacture patented containers of corrugated fiber; now equipping plant; ask prices on additional machinery. (See Machinery Wanted—Box Board and Machinery.)

Ga., Atlanta—Creamery.—Centralia Creamery Co., O. R. Lee, Pres., Centralia, Ill., plans to establish creamery; will organize company with Mr. Lee as Pres.

Ga., Atlanta—Motion Picture Films.—Edgar Dunlap will erect building for motion-picture film plant; 2 stories; film storage vaults; building to be occupied by Fox Film Corp.

Ga., Atlanta—Films.—Montefiore Selig, Empire Bldg. (representing Mrs. Annie C. Price and M. F. Holahan), will erect building; 2 stories; brick; 25x30 ft.; cost \$10,000; Fox Film Co. leased structure.

Ga., Atlanta—Street and Station Indicators.—Automatic Street & Station Indicator Co. inceptd. by W. Z. Musgrave, H. K. Duffield, Wm. Gaffard, Jr., and others; manufacture automatic device for indicating streets and stations on street cars and trains.

Ga., Atlanta—Chemicals, etc.—Atlanta Pigment & Chemical Co., capital \$3000, inceptd. by J. S. Brogren and others; manufacture chemicals and distill oils, manufacture dyes, etc.

Ga., Lawrenceville—Tannery.—Southeastern Tanning & Mfg. Co. of Lawrenceville and 609 Candler Bldg., Atlanta, Ga., will manufacture sole, harness and lace leather, 150 hides daily; has \$25,000 plant (noted inceptd., capital \$100,000, in March); N. S. Robinson, Pres.; M. N. Jones, V.-P.; M. S. Cornett, Secy.

Ga., Moultrie—Creamery.—Moultrie Co-operative Creamery Assn., capital \$25,000, inceptd. to establish creamery; has ordered refrigerating machinery.

Ga., Savannah—Bakery.—Schafer Bakery, capital \$30,000, inceptd. by J. H. Quint, H. M. Quint and P. G. Schafer.

Ky., Burkesville—Tobacco.—Farmers' Loose Leaf Tobacco Co., capital \$20,000, inceptd. by C. E. Edens, J. P. Smith and others.

Ky., Clay—Creamery.—Clay Light & Ice Co., C. R. Clark, Secy., is interested in proposed organization of company to establish plant to can milk, manufacture butter and ice-cream, etc. (See Machinery Wanted—Creamery and Ice-cream Machinery, etc.)

Ky., Henderson—Alcohol.—Kentucky Peerless Distilling Co. will install machinery for daily output 2000 gals. alcohol.

Ky., Louisville—Clothing.—Halpin Clothing Co., capital \$30,000, inceptd. by John V. Halpin, S. S. Wood and Harry Levin.

Ky., Louisville—Bicycles.—National Supply Co., capital \$10,000, inceptd. by Max M. Lipski, Hyman Frock and Coleman B. Long.

Ky., Louisville—Creamery, etc.—D. H. Ewing's Sons, 306 W. Breckinridge St., let contract to Geo. H. Rommel Co., 639 S. Campbell St., Louisville, to erect \$75,000 building at 881 S. 3d St. for making and handling of dairy products; steel and concrete construction; 60x195 ft.; special roofing; concrete floors; steam heat; electric lighting; plans by John B. Hutchings & Sons, Columbia Bldg., Louisville.

La., New Orleans—Phonographs.—Oraphone Co. organized by Henry Blanche and others; to manufacture phonographs; office at 508 South St.

Miss., Laurel—Tar.—Free Stump Remover Mfg. Co. organized; Chas. Green, Pres.; B. A. Schneider, V.-P.; E. E. Ferrell, Secy.; A. T. Ratliff, Mgr.; not ready to announce building plans; install plant for refining crude-product pine; manufacture crude raw tar; daily capacity 2000 gals. (See Machinery Wanted—Refining (Pine Products) Equipment.)

Mo., Carthage—Overalls.—Smith Bros. Mfg. Co. (E. O. Smith and Clayton Smith) will rent building and install equipment for lately noted overalls factory; small plant.

Mo., Kansas City—Envelopes.—Western Envelope Mfg. Co., David B. Fant, Pres., purchased site 55x86 ft. on which to erect 3 or 4-story building.

Mo., St. Louis—Shawmich Mfg. Co., capital \$5000, inceptd. by Glenn A. Brown, A. H. Niederlucke, Frank J. Kraus and others.

Mo., St. Louis—Films.—U. S. A. Film Co., capital \$15,000, inceptd. by Gerald B. Harney, Ernest P. Lasche, Edward Ward and others.

Mo., St. Louis—Bakery.—Jos. Klipfel will erect bakery and store; shop faced with enameled brick; oven; electrical machinery; store to have tile floor and marble base fixtures; cost \$12,000; construction under supervision of John C. Greulich Realty Co.

Mo., St. Louis—Clothing.—Mohr & Tiger Garment Co., capital \$10,000, inceptd. by Irwin Mohr, Isidor Tiger, Bessie Tiger and Fannie Mohr.

N. C., Albemarle—Ice-Cream.—Albemarle Ice-Cream Co., Hearne Bldg., organized by Peter and J. W. Womble of Greensboro, N. C.

N. C., Charlotte—Automobile Tires.—C. C. Coddington and others plan organization \$500,000 company to establish automobile tire factory.

N. C., Lexington—Bottling.—Lemon-Cola Co., capital \$25,000, inceptd. by Chas. Young, Dermott Shenwell and R. L. Reynolds.

N. C., Wilson—Peanuts.—North Carolina Peanut Co. (Alfred H. Hinde and others) will build peanut factory. (Lately noted inceptd. with \$120,000 capital.)

Okla., Avant—Glass Globes, etc.—Scandinavian Glass Mfg. Co. (lately noted inceptd., capital \$30,000) organized; O. A. Nystrand, Pres. and Mgr.; R. T. Erickholm, V.-P.; R. N. Neal, Secy.; has building with machinery installed; manufacture gas globes, electric balls and bells, and gas lamp shades. (See Machinery Wanted—Sand-blast Machine, etc.)

Okla., Oklahoma City—Brooms.—Clinton Broom Co., Clinton, Okla., will build factory; 3 stories; site 50x100 ft.; daily capacity 60 doz. brooms.

Okla., Woodward—Harness.—Woodward Mfg. & Promotion Co., capital \$25,000, inceptd. by E. L. Sill and J. D. Gray of Woodward and J. E. Maybee of Gage, Okla.

S. C., Columbia—Granite Works.—Antonio Fasoli Bros., capital \$5000, inceptd.; John Peduzzi, Pres.; Antonio Fasoli, V.-P.; Angelo Fasoli, Secy.; F. Serofini, Treas.; Jas. Canales, Mgr.

Tenn., Chattanooga—Slate Pencils, Gas Burners, etc.—D. M. Steward Mfg. Co. let contract to D. F. Brandon, Chattanooga, to erect factory building No. 4.

Tenn., Chattanooga—Bottling.—Chatta-Cola Co., capital \$50,000, inceptd.; A. L. Alsobrook, Pres.; J. W. Clift, V.-P.; Sam E. Jones, Secy.; J. C. Richards, Treas.; has building; ordered machinery.

Tenn., Lebanon—Creamery.—Co-operative Creamery Co. organized; \$4400 subscribed.

Tenn., Memphis—Shipyard.—Hottum-Kennedy Drydock & Shipyard Co. will be inceptd. by C. H. Hottum, C. W. Hunter, H. H. Kyle and others; construct dock in Wolf River.

Tenn., Nashville—Springs and Mattresses.—Nashville Spring & Mattress Co. will remodel 2-story frame factory building; cost \$16,000.

Tex., Plano—Marble.—Plano Marble Works, capital \$2000, inceptd. by G. W. Clark, E. W. Reed and M. W. Clark.

Va., Hopewell—Ice-Cream.—Boeckel Ice-Cream Co. (N. J. Boeckel and others) will enlarge plant and install machinery.

W. Va., Charleston—Novelties.—Napp Mfg. Co., capital \$10,000, inceptd. by H. M. Carson, W. C. Barker, Nat C. Burdett and others.

W. Va., Charleston—Carbon.—H. C. Beacon Carbon Co., capital \$100,000, inceptd. by L. G. Schroeder, W. A. Smith, J. E. Sterritt, all of New York, and others.

W. Va., Parkersburg—Saddles.—Spring Saddle Mfg. Co., capital \$30,000, inceptd. by Frank G. Davis, Charles L. Allender, W. H. McDowell and others.

W. Va., Kanawha City—Sheet Glass.—Libbey-Owens Sheet Glass Co. organizing to

build window-glass factory, noted in Mch. to be constructed by Toledo Glass Co., 1401 Nicholas Bldg., Toledo, O.; main building 400x500 ft.; 2 stories; box factory 80x240 ft.; power-house 50x100 ft.; storage 60x100 ft.; fireproof construction; 7 elevators; 10 conveyors; install machinery to manufacture sheet glass; DeVore McGormley Co., Toledo, Archt. and Constr. Engr.

W. Va., Parkersburg—Fenders.—International "Save-a-Life" Fender Co. organized; E. H. James, Pres.; Wilbur Blackburn, V.-P. and Gen. Mgr.; J. M. Jordan, Secy.; L. C. Pritchard, Gen. Supt.; build plant to cost \$100,000.

W. Va., Welch—Filing Device.—Wm. Burton is reported to establish plant to manufacture time-saving filing device.

MOTORS AND GARAGES

Ala., Birmingham—Automobiles.—Electric & Auto Supply Co., capital \$50,000, inceptd.; T. H. Benner, Pres.; C. D. Cotten, Secy.; W. H. Manly, Treas.

D. C., Washington—Garage.—Isaac T. Mann (1333 16th St. N. W.) and W. Gordon Crawford will erect building at 1125-1130 Connecticut Ave., which will probably be occupied by Harper-Overland Automobile Co.; structure will be 3 stories; reinforced concrete; 65x120 ft.; cost \$40,000.

Fla., Jacksonville—Automobiles.—Florida National Motor Sales Co., capital \$5000, incorporated; C. E. Garner, Pres.; Clifford A. Payne, V.-P.; M. Schwarz, Secy.-Treas.

Fla., Jacksonville—Garage.—J. M. Muldon let contract Turner Construction Co. to erect brick building; 30x125 ft.; structure has been leased to Chittenden Garage Co., organized with W. A. Rawls, Pres.; D. F. Chittenden, V.-P. and Gen. Mgr., and A. M. Chittenden, Secy.-Treas.

Fla., Miami—Garage.—American Garage Mfg. Co., 507 12th St., let lately noted contract to R. F. Archibald, 806 Cordova Ave., to erect 45x80-ft. 1-story \$4000 garage; fireproof-Dennison hollow tile; has purchased equipment, cost about \$2000.

Ga., Americus—Garage.—American Automobile Co. will build garage; 3-story structure.

Ga., Macon—Garage.—Richard F. Willingham let contract to build garage to cost \$7500.

Ky., Shelbyville—Motor Trucks.—Shelbyville-Mt. Eden Motor Truck Co., capital \$5000, inceptd. by C. R. Webb, Wm. Burnett and V. Burnett.

La., Crowley—Automobiles.—American Machine & Auto Co. will enlarge and improve plant; 1 story; corrugated steel; concrete floor.

Md., Brunswick—Garage.—C. H. Fecte will build garage.

N. C., Morven—Automobile Line.—Carolina Motor Lines Co., capital \$50,000, inceptd. by J. E. Moore and H. G. Huntley of Morven and E. P. Yates of Winston-Salem, N. C.

Okla., Ardmore—Automobiles.—Ardmore Auto Co., capital \$10,000, inceptd. by C. B. Sykes, D. C. Fitzgerald and C. F. Adams.

S. C., Charleston—Garage.—Consolidated Garage, capital \$10,000, inceptd. by Hugo Johns and E. A. Johns, Jr.

Tenn., Johnson City—Garage and Sales.—Robt. Burrow, Bristol, Tenn., will erect 64x162-ft. 1-story automobile sales and service garage at Main and Market Sts.; brick wall; concrete floor; wood roof trusses; steam heat; electric lighting; plans by Clarence B. Kearfott, Bristol, Tenn.

Tenn., Knoxville—Automobiles.—Kuhlman Motor Sales Co. inceptd. by W. D. Kuhlman and others.

Tenn., Union City—Garage.—Reece Alexander will build garage and livery barn addition; brick; 32x120 ft.; 2 stories.

Tex., Austin—Garage.—E. H. Perry will remodel garage; reinforced concrete; 2 stories; cost \$10,000; Dennis R. Walsh, Archt.

Tex., El Paso—Automobiles.—Tri-State Motor Co., capital \$150,000, inceptd. by J. W. Kirkpatrick, B. L. Farrar and C. W. Newman.

Tex., Spur—Garage.—M. C. Rouse let contract C. S. Oates of Dublin, Tex., to erect garage. (See Building News, Contracts Awarded—Theaters.)

Va., Hopewell—Garage.—City Point Motor Co., J. M. Williams, Pres., Petersburg, Va., will erect \$10,000 garage; 50x110 ft.; brick or stone; metal roof; cement floor; electric lighting; install elevator, cost \$1000; will soon open building-construction bids.

W. Va., Marlinton—Garage.—J. L. Baxter will build garage; 48x60 ft.; 1 story; concrete blocks; Duncan & Waugh, Contrs.

W. Va., Wheeling—Garage.—T. A. Westmeyer Auto Supply Co. will build \$6500 garage; 2 stories; steel, tile and manufactured stone.

W. Va., Elkins—Automobiles.—Gibbs Motor Sales Co., capital \$10,000, inceptd. by C. H. Earle, E. F. King and others.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Miss., Meridian—Mobile & Ohio R. R. Co., B. A. Wood, Ch. Engr., M. of W. & S., Mobile, Ala., advises does not contemplate improvements to shops. (Recent report incorrect.)

Okla., Muskogee—Midland Valley R. R., C. C. Kaighn, Ch. Engr., Muskogee, let contract Arnold & Co. of Chicago, Ill., to erect shop buildings; cost \$160,000. (Noted in February.)

ROAD AND STREET WORK

Ala., Dothan.—Houston County Board Revenue let contract Wofford & Brown, Dothan, to construct 15 ml. sand-clay roads; \$30,000 available; W. R. Koonce, Engr., Dothan. (Bids noted in Mar.)

Fla., De Land.—Volusia County Commrs., Maynard M. Bond, Chrmn., let contract to Southern Clay Mfg. Co., Chattanooga, Tenn., at about \$300,000 to construct 26 ml. road; includes about 18 ml. Dunn wire-cut grouted brick, 6 ml. shell and 2 of asphalt; also let contract to F. G. Proudfoot, Chicago, at \$250,000 for about 32 ml. road, to include about 25 ml. asphaltic concrete and 7 ml. shell road. (Bids lately noted.)

Fla., De Land.—Volusia County Commrs., Maynard M. Bond, Chrmn., let contracts to construct road in Halifax Road Dist. as follows: F. G. Proudfoot of Chicago at \$199,069.97 to construct road north and south on west side of Halifax River with additional cost of \$597.50 for 5-yr. maintenance; road to be 9 ft. wide with marl shoulder of 3 ft. on each side, except through corporate limits of Daytona; pave Beach St. to width ranging from 9 to 50 ft.; \$30,527.50 to be added to contract price for increasing width of Beach St. and for additional width to road through corporate limits of Daytona Beach and Seabreeze, F. F. Smith of Daytona at \$24,648 for shell surfacing and F. G. Proudfoot at \$31,258.29 for asphaltic concrete paving on Peninsula road; shell paving from north county line to east end of Port Orange bridge; asphaltic concrete through Daytona Beach and Sea Breeze, width ranging from 9 to 18 ft.; additional charge for extra width, which additional charge is included in cost of extra width of Beach St.; J. B. McCrary Co., Engr., Atlanta, Ga. (Call for bids noted in Feb.)

Fla., Fort Pierce.—City let contract B. Cone to construct sidewalks on Lemon St. and Oak Ave.; 18,000 sq. ft. cement construction; cost \$2000.

Fla., Kissimmee.—City let contract Alabama Paving Co., Birmingham, Ala., to pave with vitrified brick Main St. from Oak St. to city limits, to connect with county road to Orlando; cost \$11,000, exclusive of bridge across ditch near city limits.

Fla., Sebring.—City, H. C. Brown, Mayor, contemplates construction 50,000 sq. yds. asphalt paving and 3 mi. concrete curbing; probably open bids in May or June; Engr., Jaudon Engineering Co., Savannah, Ga., and Bartow, Fla. (Lately noted to vote May 12 on \$50,000 bonds.)

Ga., Ringgold.—Catoosa county defeated \$64,000 bonds for road construction. (Lately noted.)

Ga., Tifton.—City votes Apr. 11 on \$15,000 bonds to macadamize or pave streets. Keith Carson, Clerk of Council.

Ky., Campton.—Wolfe county votes May 6 on \$50,000 bonds to construct roads. Address County Commrs.

Ky., Edmonton.—Metcalfe county voted \$30,000 bonds to construct roads; will have additional amount from State; construct limestone-rock roads; 10 to 20 ml.; open bids about May 1; engineer not employed; C. H. Forrest, Edmonton, in charge.

Ky., Georgetown.—Scott County Commrs. plan to construct 56 ml. intercounty roads. (Noted in January to have voted \$100,000 bonds for road improvements.)

Ky., Hazard.—City, W. M. Pursifull, Mayor, will construct 1 1/2 ml. street paving; brick; concrete or macadam; bids until May 1. (See Machinery Wanted—Paving.)

Ky., Mayesville.—City let contract R. L. Schofield, 816 Columbia St., Newport, Ky., at \$21,500, to pave streets with brick on concrete base, with cement curb; Vastine, Nowlands & Lohre, Covington, Ky., at \$42,000

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

pave streets with brick on concrete base, with cement curb.

Ky., Morganfield.—Union county voted \$400,000 bonds to construct hard-surfaced roads. Address County Commrs. (Noted in March.)

Ky., Warsaw.—Harper & Fathergill Turnpike Co., capital \$5000, incptd. by J. W. Montgomery, Thos. Buchanan and others.

Ky., Whitesburg.—Letcher county votes May 6 on \$300,000 bonds to construct roads; Henry T. Day, County Judge. (Supersedes recent item.)

La., Marksville.—Avoyelles parish let contract W. E. Geren, Columbia, La., to construct sand-clay and gravel roads; 22,000 cu. yds. earthwork; 4800 cu. yds. gravel; \$15,000 available; W. E. Atkinson, State Highway Engr., New Orleans. (Bids noted in March.)

La., Franklinton.—Washington Parish Police Jury plans to construct 140 mi. of road.

Md., Baltimore.—City will grade and pave with cement-concrete various alleys; bids until Apr. 12; R. M. Cooksey, Highways Engineer. (See Machinery Wanted—Paving.)

Md., Baltimore.—City let contract P. Flanagan & Sons, Harford Rd. and B. & O. R. R., at \$94,350 to construct 60,000 sq. yds. sheet-asphalt paving with vitrified brick gutters and alley intersections; includes 30,000 cu. yds. grading.

Md., Ellicott City.—Howard County Commrs., M. J. Sullivan, Clerk, will construct 1.74 mi. Woodbine-Lisbon Rd.; bids until Apr. 4.

Md., La Plata.—Charles County Commrs. have authority from Legislature to issue bonds for road construction.

Md., Rockville.—Montgomery County Commissioners have been authorized by Legislature to issue \$40,000 bonds for road construction.

Miss., Clarksdale.—City will improve streets with concrete paving; 7000 sq. ft. sidewalk, 1500 sq. ft. crossings and 290 lin. ft. curb and gutter; property owners to construct 45,000 sq. ft. sidewalk; City Commrs. receive bids until Apr. 18; A. C. Tuttle, Clerk. (See Machinery Wanted—Paving.)

Miss., Columbus.—Lowndes County, Supvs. Dist. 1, voted \$10,000 bonds; Dist. 2 will furnish \$20,000; this insures completion of Jackson Highway through county; Commrs. are A. M. Lawrence, Caledonia, and W. N. Hutchinson and Z. N. Goolsby of Columbus; C. L. Wood, Engr. (Noted in March.)

Ms., Bolivar.—Polk county, Bolivar Dist., voted \$40,000 bonds to improve roads. Address County Commrs.

Mo., Greenville.—Wayne county votes Apr. 29 on \$300,000 bonds to construct roads. Address County Commrs.

Mo., Independence.—Jackson County Commissioners received specifications and estimates of cost from Allen C. Southern, Highway Engr., for paving 5.47 mi. of road from Cross-State Highway at Levasy to end of present macadamized road at Mecklin; either concrete or macadam construction.

N. C., Black Mountain.—City let contract to P. S. Minus, Asheville, N. C., to construct sidewalk and curbing.

N. C., Lenoir.—Franklin county, Cedar Rock township, voted \$30,000 bonds to construct roads. Address County Commrs.

N. C., Raleigh.—City will expend \$50,000 additional to pave streets with asphalt. Address Mayor Johnson.

Tenn., Bristol.—City Commission will construct concrete streets; cost \$100,000.

Tenn., Knoxville.—Knox County Good Roads Com., A. I. Smith, Chrmn., let contract Murray Construction Co. of Knoxville to pave with concrete-asphalt Kingston and Sevierville pikes; commission plans to expend \$100,000 for road improvements.

Tenn., Knoxville.—City Commrs. will pave, grade and curb improvement Dists. 116, 117, 119, 120 and 121; about 9000 sq. yds.; bids until Apr. 14; J. B. McCalla, City Engr. (See Machinery Wanted—Paving.)

Tex., Boston.—Bowie County Commrs. appropriated \$81,000 to extend highways.

Tex., Bryan.—Brazos county will construct 8½ mi. earth and gravel roads and surface about 5 mi. with bituminous macadam or rock asphalt; also build bridges in connection; County Commrs. receive bids until Apr. 13; Abney & McCormick, Engrs., R. F. D. No. 1, Bryan. (See Machinery Wanted—Road Construction.)

Tex., Eastland.—Eastland county, Cisco Dist., voted \$60,000 bonds to construct roads. Address County Commrs. (Noted in Feb.)

Tex., Caldwell.—Burleson county, Dist. No. 1, votes Apr. 28 on \$100,000 bonds to construct roads. Address County Commrs.

Tex., Edinburg.—Hidalgo county votes Apr. 22 on \$250,000 bonds to construct roads. Address County Commrs.

Tex., Franklin.—Robertson county, Precinct No. 8, will construct 7 mi. of road; Road Board, W. P. Walter, Chrmn., receives bids until Apr. 5; Lamar Acker, Engr., Calvert, Tex., will supervise construction. (See Machinery Wanted—Road Construction.)

Tex., Houston.—City let contract Eureka Paving Co. of Houston to grade and pave Main St. from McKinney Ave. to G. H. & S. A. Ry. with asphaltic concrete. Ben Campbell, Mayor. (Call for bids lately noted.)

Tex., Houston.—Harris County Commrs. let contract Lester Levy of Dallas at \$141,927.50 to pave Harrisburg Rd. from city limits to intersection of Laporte Rd. with Texaco asphaltic concrete. (Lately noted.)

Tex., Mount Pleasant.—Titus County, Winfield Prec., votes Apr. 13 on \$75,000 bonds to construct roads. Address County Commrs.

Tex., Olton.—Lamb County Commrs. let contract Irick & Penick to construct 3 additional mi. of clay road.

Tex., Mount Vernon.—Franklin county, Commrs. Prec. No. 1, defeated \$200,000 bonds to construct gravel roads. O. L. Reeves, County Judge. (Lately noted.)

Tex., Orange.—Orange County, Special Road Dist. No. 2, will issue \$40,000 bonds to construct roads. Address County Commrs.

Tex., Rio Grande.—Starr county voted \$60,000 bonds to construct roads. Address County Commrs.

Tex., Rockwall.—Rockwall county will construct Rockwall-Dallas highway through East Fork Bottom for Good Roads Dist. No. 1; work includes 27,000 cu. yds. grading, 8000 sq. yds. triple-ply asphalt macadam, 940 cu. yds. gravel, 500 lin. ft. treated timber trestle, 150 lin. ft. corrugated-metal pipe, etc.; County Commrs. receive bids until Apr. 10; J. F. Witt, Engr., Dallas; J. R. Reese, County Judge; lately noted as contemplating construction 2 mi. roads to cost \$25,000. (See Machinery Wanted—Road Construction.)

Tex., Sinton.—Comms. Road Dist. No. 1 (including Aransas Pass) let contract Breaker, Baird, Curtis & Witt Construction Co. of Aransas Pass at \$57,796.68 to construct about 24 mi. gravel roads; require 1000 to 1700 carloads gravel; Geo. W. King, Resident Engr.; contractors have incptd. as Southern Construction Co.

Tex., Streetman.—City is reported to vote on \$62,000 bonds to construct roads. Address The Mayor.

Tex., Wharton.—Wharton county, Road Dist. No. 3, defeated \$75,000 bonds to construct roads. (Lately noted.)

Tex., Wharton.—Wharton County Commrs. let following contracts for road construction in Prec. No. 1: G. A. Harrison, Iago Road; Lane & Tiffin, 2 sections Law City road, and Jim Clements, third section; B. D. Garmany, first section Hungerford Road from Wharton to El Campo Prec. line, and A. C. Wilbeck, second section from Hungerford to East Bernard; one section yet to be let.

Va., Gloucester.—Gloucester county is constructing sand-clay road by county force; cost about \$5000; J. R. Hinkle, Supt. of Roads; F. D. Henley, Richmond, Va., State Highway Commr. (Noted in March.)

Va., Hampton.—Elizabeth City County Supvs. will invite bids on construction of roadway from Phoebus to Buckroe Beach and on road from Riverview to Geo. Wythe Schools; Buckroe Beach road to be 20 ft. wide with wagon road of 12 ft.; G. P. Coleman, State Highway Commr., Richmond, submitted report estimating cost of shell road from Phoebus to Buckroe Beach at \$545,500, Riverview road at \$1199 and Aberdeen road in Wythe District at \$3184; Harry H. Holt, Clerk of Courts.

Va., Richmond.—Administrative Board received report from Bolton, Clarke & Pratt, Engrs., estimating cost of constructing Riverside Drive at \$222,235.75; driveway to be 40 ft. wide; preliminary plans provide for reinforced concrete retaining wall where slopes, caused by embankment, approach so near as to endanger James River and Kanawha Canal; also for viaduct along Hollywood Cemetery property to be 40 ft. wide and 300 ft. long of reinforced concrete construction; system of culverts and tile drains to provide drainage. Chas. E. Bolling, City Engr.

W. Va., Beckley.—Raleigh county voted \$885,000 bonds for road construction as follows: Town Dist., \$300,000; Trap Hill Dist., \$135,000; Shady Spring Dist., \$190,000; Slab Fork Dist., \$210,000. Address County Commrs. (Noted in Mch.)

SEWER CONSTRUCTION

Ga., Savannah.—City let following contracts on \$400,000 house drain and storm-sewer system: Obenshain Bros. Construction & Contracting Co., Center Moriches, N. Y., at \$121,124.50 to construct Div. A, east side contract; Gadsden Contract Co. and Guild & Co., Savannah, jointly, at \$132,288.70 for Div. B, west side contract; 8 to 24-in. tile pipe; 30 to 60-in. reinforced concrete pipe; 450 ft. 5 and 6-ft. reinforced concrete box sewer; E. R. Conant, Ch. Engr., City Hall. (Lately noted.)

La., Shreveport.—City engaged John B. Hawley, Engr., Fort Worth, Tex., to design and supervise construction of sewer and water system; cost \$1,200,000; Engr. states just beginning survey; plans not to be ready for many months. (Noted in November to have voted \$1,200,000 bonds.)

Md., Delmar.—Cities of Delmar, Md., and Delmar, Del., are reported as considering construction of sewer system to cost \$100,000. Address The Mayor.

Md., Grantsville.—City, H. C. Bonig, Mayor, voted Apr. 3 on \$15,000 bonds for sewer construction.

Miss., Quitman.—City is considering bond issue to construct drainage system. Address The Mayor.

N. C., Kinston.—City's lately-noted sewer extension is completion of sewerage construction, contract already awarded to Mishler & Flynn, Chattanooga, Tenn.; Gilbert C. White, Engr., Durham, N. C.; F. J. Sutton, Mayor.

N. C., Mayodan.—Mayodan Mills let contract Sanitary Engineering Co., Charlotte, N. C., for 175 sewage-disposal outfits to be installed one at each of operatives' houses in mill village.

N. C., Swepsonville.—Virginia Cotton Mills let contract Sanitary Engineering Co. of Charlotte, N. C., for sewage-disposal outfits for 118 families in mill village.

Okla., Blackwell.—City votes Apr. 19 on \$18,000 bonds for storm-sewer system; Benham Engineering Co., Oklahoma City, Okla., Engr.; lately noted. (See Water-Works.)

Okla., Marlow.—City voted Apr. 4 on bonds for sewer system. Address The Mayor.

Okla., Tonkawa.—City let contract F. W. Kenney & Co., Oklahoma City, to construct 1900 ft. 8-in. and 5610 ft. 6-in. salt-glazed vitrified sewer pipe; cost \$5855; Engr., Benham Engineering Co., Oklahoma City. (Bids lately noted.)

Tex., Clarksville.—City retained Henry E. Elrod, Southwestern Life Bldg., Dallas, Tex., to prepare plans for reconstruction of sewage-disposal plant.

Tex., Corsicana.—City has submitted plans to V. M. Ehlers, State Sanitary Engr., for activated sludge system for sewage disposal, same to be continuous flow and so arranged as to allow conversion into Imhoff tank system; cost \$10,000.

Tex., Dublin.—City plans to install sewage-disposal plant. Address The Mayor.

Tex., El Campo.—City plans to improve sewer system; John Melcher, Mayor.

Tex., Hillsboro.—City is having plans prepared for sewage-disposal plant; F. C. Metzger, City Engr.

Tex., Huntsville.—City is considering plans for sewage-disposal plant; A. T. McKinney, City Atty.

Tex., Marlin.—City will issue \$45,000 bonds for sewer construction; Levi Goodrich, City Engr. (Bonds reported in June as voted.)

Tex., Sweetwater.—City submitted plans to V. M. Ehlers, State Sanitary Engr., for sewer system and sewage-disposal plant; cost \$34,800; M. H. Mathes, Consult. Engr., Harrisburg, Pa.

Tex., Teague.—City plans to improve sewer system. Address The Mayor.

Tex., Venus.—City will construct sewer system and sewage-disposal plant; cost \$12,000; will soon let contract. Address The Mayor.

Tex., Victoria.—City will construct sewage-treatment plant; will let contract about May 1; L. A. Gueringer, City Engr.

Tex., Wynnboro.—City invites bids for pipe, etc., for sewer system; cost \$15,000; disposal plant, \$5000; construction by city; Wm. E. Stevenson, Engr., Wynnboro; Gordon Ames, City Secy. (Noted in March.)

Va., Altavista.—City votes Apr. 15 on bonds to purchase sewer system and water-works of Altavista Land & Improvement Co. Address The Mayor. (Noted in Feb.)

TELEPHONE SYSTEMS

Ga., Atlanta.—Southern Bell Telephone & Telegraph Co. (main office, Atlanta, Ga.) will erect exchange and office building.

Mo., Kansas City.—Bell Telephone Co. will build telephone exchange; 2 stories; brick; site 150x298 ft.

Mo., St. Louis.—Southwestern Telegraph & Telephone Co. will erect addition to Grand Exchange at 1625 S. Grand Ave.; 2 stories; 34x50 ft.; brick; roof garden; cost \$35,000.

Okla., Crawford.—Crawford Telephone Co., incptd. by Wm. Allen and Sam Branham of Crawford and A. M. Patterson of Roll, Okla.

Okla., Venton.—Venton Telephone Co. is incorporated by J. L. Steadman, J. L. Ludwig and H. C. Groves, all of Woodward, Okla.

S. C., Lexington.—Citizens' Telephone Co., Samuel B. George, Gen. Mgr., will erect 20 75-ft. \$1500 exchange; brick; metal roof; concrete floor; electric lighting.

TEXTILE MILLS

Ala., Attalla.—Hosiery.—W. B. Davis & Sons, James Bldg., Chattanooga, Tenn., have plans and specifications and will soon invite bids to erect branch hosiery knitting mill; 60x150 ft.; brick; plans contemplate enlargement of building later so as to double capacity. (Lately noted.)

Ala., Opelika.—Cotton Products.—Opelika Cotton Mills will hold meeting Apr. 11 to vote on increase in capital stock.

Ga., Columbus.—Cotton Platts, etc.—Swift Mfg. Co. has plans by J. E. Sirrine, Greenville, S. C., for additional mill; 4 stories; mill construction; plans ready; bids Apr. 10; install 20,000 spindles. (Noted in Mar.)

Ga., Jonesboro.—Hosiery.—Jonesboro Mfg. Co. will build 100x50-ft. mill and 4x24 ft. dyehouse, costing \$6000 to \$10,000; building plans and specifications by T. W. Woodhaus, Villa Rica, Ga.; install 30 knitting machines with 50 H. P. steam and electric power; have space for 100 knitters; use sulphur black; bleach and finish; daily capacity, 50 to 600 doz. prs. hose. (Noted incptd. in January; capital \$30,000.)

Ga., Lavonia.—Cotton Goods.—Lavonia Cotton Mfg. Co., capital \$100,000, incptd. by N. Y. McCann of Macon, Ga., and others.

Ga., Union Point.—Hosiery.—Union Mfg. Co. is reported to enlarge mill.

N. C., Cherryville.—Knit Goods.—R. J. Morrison plans to establish knit-goods mill.

N. C., Gastonia.—Yarn.—C. B. Armstrong will build mill to manufacture fine yarns; initial installation 6000 spindles; probably let contracts for erection of building within next 10 days.

N. C., Randleman.—Hosiery.—Randleman Hosiery Mills Co. plans building additions or adding new machinery.

N. C., Roanoke Rapids.—Patterson Mills Co. will, it is reported, add 5700 spindles.

N. C., Wendell.—Hosiery.—Wendell Knitting Mills contemplate adding finishing plant.

S. C., Greenville.—Cotton Goods.—Polsonett Mill Co., capital \$600,000, organized with J. W. Smith, Prest-Treas., Spartanburg, S. C.; A. G. Furman, V.-P. and Asst. Treas.; C. E. Hatch, Secy., both of Greenville; purchased Carolina Mill.

S. C., Lancaster.—Underwear.—John D. Wythe and W. M. Stearns will establish \$5,000 underwear knitting mill; 30 knitting machines; bleaching, dyeing and finishing equipment; electric power. (Lately noted proposed.)

Tenn., Chattanooga.—Aseptic Cotton Products.—Chattanooga Aseptic Cotton Co. has final plans and specifications to construct mill, replacing burned plant; 257x40 ft.; slow-burning-construction building; brick walls and piers; concrete floors; composition asbestos roof; Clarence T. Jones, architect, Chattanooga; install machinery, including electric drive, to manufacture aseptic cotton products. (Noted in March.)

Va., Hopewell.—Hosiery.—John M. Maxwell, Box 304, is interested in organization of hosiery mill company. (See Machinery Wanted—Knitting Machinery.)

WATER-WORKS

Ark., Rush.—Anbrose Estes considering plans for construction of water-works and electric-light plant.

D. C., Takoma Park.—Town voted \$25,000 bonds to construct 3,500,000-gal. reservoir and settling basin. Address Town Clerk.

Fla., Lakeland.—Bond Trustees let contract Southern Construction Co., Jacksonville, Fla., at \$25,340 to construct reservoir, powerhouse and all foundations. (See Electric Plants.)

Fla., Winter Park.—City will not install emergency pumping plant noted in March. (Report incorrect.)

Co. will
es; brick
elegraph
to Grand
2 stories;
t \$35,000.

La., Lafayette.—City votes May 2 on \$30,000 bonds to improve and extend water system. Address The Mayor.

La., Lake Charles.—City is having plans prepared by Burns & McDonnell, Interstate Bldg., Kansas City, Mo., for improvements to water-works and new water supply.

La., Shreveport.—City engaged John B. Hawley, Engr., Fort Worth, Tex., to design and supervise construction of water-works and sewer system; cost \$1,200,000; Engr. states just beginning survey; plans not to be ready for many months. (Noted in November to have voted \$1,200,000 bonds.)

Mo., Mt. Ranier.—Town engaged Harry Stevens, Union Trust Bldg., Washington, D. C., as engineer for water-works; cost \$100,000; Peter J. Hogan, Town Clerk.

Mo., Curtis Bay.—Curtis Bay Light & Water Co. let contract to Gischel & Co., Curtis Bay, for extension of mains along Pennington Ave. 1 mi.; old mains to be taken up, replaced with 6 in. main.

Miss., Baldwin.—City voted \$10,000 bonds to improve water-works and install electric light plant; W. A. Stocks, Mayor.

Mo., Webster Groves.—City, R. L. Wilson, City Clerk, voted \$17,000 bonds for water-main extensions; also \$15,000 for fire-equipment purchases. (Lately noted.)

N. C., Charlotte.—City let contract Hunter & Gordon, Charlotte, to erect water-works building on N. Graham St.

Okla., Blackwell.—City votes Apr. 19 on \$60,000 bonds, divided as follows: Water-works extensions, \$32,000; electric light extensions, \$10,000; sewers, \$18,000; construction to include new generating units at water-works and electric light station, new boilers, feed pumps, feed-water heater, new intake at river, changes in filtering system, white way and system of storm sewers; Benham Engineering Co., Oklahoma City, Okla., Engr. (Lately noted.)

Okla., Cordell.—City Commrs. are considering construction of water-works.

Okla., Wellston.—Board of Trustees is considering construction of water-works.

Okla., Wellston.—City will construct water-works; includes 400 lin. ft. 6-in. and 500 ft. 14-in. cast-iron pipe, 500 lin. ft. 2-in. wrought-iron pipe, castings, hydrants, etc.; 30,000-gal. elevated tank; pumps, etc.; power-house building; 100,000-gal. surface brick reservoir; Engr., Benham Engineering Co., 13th floor Oxford Bldg., Oklahoma City; bids until Apr. 17. (See Machinery Wanted—Water-works.)

S. C., Bamberg.—City contemplates voting on bonds to extend water system and install plant. Address The Mayor.

Tenn., Memphis.—City will construct reservoirs as follows: Reservoir No. 4, along Bayou Gayoso from 2d to 3d St.; 330 cu. yds. foundation concrete, 1190 cu. yds. concrete in walls, 165 cu. yds. concrete in channel lining and 200 cu. yds. excavation; reservoir No. 3, along Bayou Gayoso from Mill Ave. to 2d St.; 490 cu. yds. concrete channel lining, 81 cu. yds. concrete in gravity wall, 5300 cu. yds. channel excavation, 40,000 cu. yds. reservoir excavation and 500 cu. yds. footing concrete; Special North Memphis Levee—Reservoir No. 2 and east part of No. 1, 85 ft. west of Main St. to Mill Ave., along Bayou Gayoso—1262 cu. yds. reinforced concrete in arch section and retaining wall, 720 cu. yds. footing concrete, 800 cu. yds. concrete and gravity wall, 165 cu. yds. concrete in channel lining and 250 cu. yds. excavation; specifications and profiles on file with City Engr.; bids until Apr. 11; T. C. Ashcroft, Mayor. (See Machinery Wanted—Water-works Construction.)

Tenn., New Tazewell.—City will extend water mains; cost \$10,000. Address The Mayor.

Tenn., New Tazewell.—J. W. Rose and M. B. Carr of Tazewell, Tenn., interested in organization company to construct water-works, etc. (See Electric Plants.)

Tex., Fort Worth.—City invites bids until Apr. 8 to construct pipe line to convey water from reservoir owned by city for distance 14,357 ft.; pipe of cast iron, steel or suitable grade of concrete; 15 1/2 ft. to be 36 in. inside diam. and 12,541 ft. 48 in. inside diam.; conduit to withstand maximum internal pressure of 30 lbs. per sq. in.; M. P. Harwood, Jr., City Secy.; previously noted. (See Machinery Wanted—Pipe Line.)

Tex., Lockhart.—Citizens' Water, Light & Power Co. will construct water-works, ice plant and electric-light system; receives bids

until Apr. 18, either separately upon each item or upon entire plant as whole; steel hemispherical bottom tank with tower; concrete and iron pump-house; concrete and brick house for light and ice plant; 30-ton ice machine, installed complete; 100 K. W. electric generating plant, installed complete; 400 tons Class B cast-iron pipe, 4, 6 and 8 in., laid; 50 standard fire hydrants, installed; 200 water meters, installed, 1/2 in. and 3/4 in.; 300 Michigan cedar poles, 30-35 ft., with fittings, set; 18 mi. weather-proof wire, Nos. 4 to 10, strung; 250 electric service meters, placed; Henry E. Elrod, Consult. Engr., 507 Southwestern Life Bldg., Dallas, Tex.; noted in Feb. (See Machinery Wanted—Water-works, etc.)

Tex., Marlin.—City will issue \$15,000 bonds to improve water-works; Levi Goodrich, City Engr. (Bonds reported in June as voted.)

Tex., Texarkana.—City will expend \$30,000 to improve water-works; C. E. Hayden, City Engr.

Tex., Timpson.—City, B. J. Hawthorne, Mayor, let following water-works contracts: 75,000-gal. tank and tower, Pittsburgh-Des Moines Steel Co., Dallas, Tex.; pumping machinery, 160 G. P. M. deep-well pump, driven by 20 H. P. Little Giant oil engine, to Gainer Co., Fort Worth, Tex.; distribution system, 6 and 8-in. class B cast-iron pipe, to Hamilton Bros. Construction Co., Houston. (Bids lately noted.)

Va., Altavista.—City votes Apr. 15 on bonds to purchase water-works and sewer system of Altavista Land & Improvement Co. Address The Mayor. (Noted in Feb.)

W. Va., Cameron.—Baltimore & Ohio R. R., F. L. Stuart, Ch. Engr., Baltimore, Md., advises does not contemplate erection of lately-reported water plant for locomotives.

WOODWORKING PLANTS

Ark., Pine Bluff.—Shovel Handles.—Win. Haas & Son will establish factory; daily capacity, 200 doz. shovel handles.

Fla., Mims.—Crates, etc.—Mims Mills, capital \$12,000, inceptd.; Geo. G. Brockett, Pres., Titusville, Fla.; A. N. Nolle, Secy., Treas. and Gen. Mgr., Mims.

La., New Orleans.—Freilberg Lumber Co., Cincinnati, O., will not erect furniture factory (as lately incorrectly reported); will build saw and veneer mill. (See Lumber Manufacturing.)

Mo., Elkton.—Cabinets.—American Cabinet Co. inceptd. by Clement M. Egner and others.

N. C., Elizabeth City.—Porch Columns, etc., National Column Co., capital \$25,000, inceptd. by W. A. Worth, W. G. Galther, Jr., and Edison Carr.

Tenn., Knoxville.—Crates.—T. V. Boardman, care of Hotel Atkin, and others will incorporate company with \$300,000 capital to establish plant to manufacture wooden crates in which to ship bottled goods.

FIRE DAMAGE

Ala., Birmingham.—Gulf States Steel Co.'s coal bin and crusher engine; estimated loss \$20,000.

Ala., Iinden.—Geo. O. Miller's residence.

Ala., Mobile.—F. L. Crown's residence; loss several thousand dollars.

Ala., Oxford.—Blue Springs Mercantile Co.'s building; loss \$20,000.

Ark., England.—Commercial Hotel; loss \$7000.

Ark., Jonesboro.—Jonesboro, Lake City & Eastern R. R.'s machine shop and boiler-room; loss \$8000; L. C. Gaty, Gen. Mgr.

Ark., Little Rock.—Florence Crittenton Home; loss \$14,000; Elizabeth Pollock, Pres., Executive Comm.

Ark., Spadra.—Eureka Mining Co.'s engine-room; loss \$5000.

Fla., Bellevue.—Bellevue Negro Orphanage.

Fla., Coronado.—Residences of C. L. Donn, V. Berger and Van der San.

Fla., Miami.—Old People's Bank Bldg.; loss \$3000.

Fla., Tampa.—R. D. Nicholson's residence; loss \$4000.

Fla., Volusia.—McClelland & Jones' saw-mill, dry kilns, planing mill and 25,000 ft. lumber.

Ga., Augusta.—Lesser Warehouse Co.'s warehouse; cost \$70,000.

Ga., Coolidge.—Coolidge Warehouse Co.'s warehouse; J. Tom Kennedy's store; H. H. O'Neal's store; Dennard Bldg.; Roberts Garage.

Ga., Dublin.—Gulf Refining Co.'s oil tanks; Southern Cotton Oil Co.'s warehouse; number of dwellings, etc.; loss \$20,000.

Ga., Mineola.—Fender Lumber Co.'s planing mill and drykiln.

Ga., Sparks.—Adams Cotton Gin; estimated loss \$10,000.

Ky., Glendale.—J. E. McLean's store, loss \$4000; G. M. Ridder's store, loss \$23,500; Mrs. Renna Neighbors' two residences, loss \$4500.

Ky., Harlan.—Dr. Frank Kelley's residence; Christian Church (address The Pastor); Harvey Coldiron's residence; loss \$5000.

Ky., Marion.—W. O. Tucker Co.'s chair factory; loss \$4000; J. W. Wilson, owner of building.

Ky., Richmond.—Mrs. J. R. Azbill's residence; loss \$4500.

Ky., Shelbyville.—D. M. Lynch's building, owned by Mrs. Bertie Amls Holder, Nashville, Tenn., loss \$4000; Home Telephone Co.'s Exchange, loss \$7000; building owned by McKendrick heirs, loss \$4000.

Ky., Walton.—Cloyd Powers' residence; loss \$3000.

Ky., Winchester.—Dwelling owned by J. Warwick Gay, Mrs. Lela Gay Burnan and Mrs. Robert Gay.

Ky., Whitesburg.—Norton Mattress Mfg. Co.'s plant damaged; loss \$3000.

La., Alexandria.—Swift Packing Co.'s plant; Achille Bauer Co.'s store; loss \$50,000.

La., Lake Arthur.—Louisiana State Rice Milling Co.'s plant; loss \$5000.

La., Leesville.—H. H. Booker's residence; loss \$2000.

La., Morgan City.—Henry Kahn's store; loss \$12,000.

La., New Orleans.—Building at 336 7 Magazine St., owned by Frank Vatter, 3d and Camp Sts., loss \$4000; building owned by William Tebault, Jr., and Ethel Stafford, loss \$21,000; cottage owned by Mrs. John J. Kreker, 3216 Magazine St., loss \$4000; building at 3312-14 Magazine St., owned by Chas. Wirth, Sr., 2225 Carrollton Ave., loss \$10,000; dwelling owned by Bertrand Tasse, 725 St. Joseph St., loss \$3000.

Mo., Ellerslie.—Ellerslie Hotel, owned by Philip Smith, La Vale; loss \$10,000.

Mo., Ocean City.—Sea Crest Inn, owned by Mrs. E. H. Young, Baltimore, Md.

Miss., Columbus.—Willis Banks' store and residence at Bent Oak.

Miss., Moorhead.—Methodist church and parsonage. Address The Pastor.

Miss., Bassfield.—A. S. McLain's residence.

Mo., St. Louis.—West Presbyterian Church; loss \$60,000; Rev. F. W. Russell, Pastor, 5848 Maple Ave.

N. C., Belmont.—Riverside Brick Co.'s plant on Catawba River.

N. C., Hickory.—Crouch Cabinet Co.'s plant; loss \$2000.

N. C., Hickory.—Crouch Cabinet Co.'s building-material plant; loss about \$8000.

N. C., Lexington.—Peerless Mattress Co.'s plant; loss \$50,000.

S. C., Darlington.—T. C. Jefford's stable, blacksmith shop and other buildings.

S. C., Lexington.—S. B. George's building, loss \$12,000; Lexington Dispatch's printing office, loss \$3500; G. M. Harman's residence, loss \$4000; Scott Hendrix's stores and residence, loss \$9000; E. G. Dreher's building, loss \$5500; Meetez Hotel, loss \$8000; Lexington Trading Co.'s store, loss \$10,000; Bank of Western Carolina, loss \$6000; E. P. Derriek's building, loss \$5000; E. B. Roof & Son's building, loss \$5000.

S. C., Rock Hill.—Virginia-Carolina Chem-

ical Co.'s plant; loss \$35,000 to \$40,000; main office, Richmond, Va.

S. C., Wagener.—Debb & Redd Bldg.; post-office; Maurice Jackson's residence; Mrs. R. L. Gunter's residence; Ed. Toole's residence; loss \$5000 to \$10,000.

Tenn., Harriman.—D. Friedman's residence.

Tenn., Harriman.—Charles M. Julian's residence; loss \$2000.

Tenn., Nashville.—Atlantic & Pacific Tea Co.'s building at 312 Third Ave.; loss \$15,000.

Tenn., Paris.—Hafford Clark's residence and barn; loss \$3500.

Tenn., Union City.—Herman Hetzel, Jr.'s residence; loss \$7000.

Tex., Amarillo.—Chicago, Rock Island & Pacific Ry.'s passenger station and general offices; loss \$10,000; C. A. Morse, Ch. Engr., Chicago.

Tex., Belton.—Hugh Smith's residence.

Tex., Dallas.—Slaughter Bldg.

Tex., Dallas.—Alex. C. Garrett, Jr.'s, residence; loss \$4800.

Tex., Houston.—F. W. Heltmann Co.'s warehouse; loss \$200,000; Milo Hotel, loss \$15,000; residences of E. R. Jones and William Kaule, loss \$8000; South Texas Implement Co.'s warehouse, loss \$13,000; Missouri, Kansas & Texas Ry. Co.'s buildings and contents, loss \$14,500.

Tex., Greenville.—Greenville Lumber Co.'s shed and office; loss \$10,000 to \$15,000.

Tex., Heldenheimer.—John Mahler's residence; loss \$2500.

Tex., Houston Heights.—O. H. Brown's residence at 1311 Boulevard; loss \$3000.

Tex., Lago.—Two buildings owned by T. Gordon, Wharton, Tex.; Dr. Wireback's store and residence; loss \$5000.

Tex., Jefferson.—Clarke & Bolce Lumber Co.'s sawmill; loss \$25,000.

Tex., Lufkin.—Carter-Kelly Lumber Co.'s sawmill; loss \$100,000.

Tex., Madisonville.—Warehouse of Pierce-Fordey Oil Co.; loss \$4000; main office St. Louis.

Tex., McGregor.—Buildings owned by William Anthur, Waco, Tex., and Frank Gleescke, Brenham, Tex.; loss \$4000.

Tex., Moody.—Buildings occupied by Snell Hardware Co., Baker & Burt, Luke Baker, Lee Shambelin, Howard & Whit Co., Denny & Marshall and Woodmen of the World; loss \$60,000 to \$70,000.

Tex., Moody.—Woodmen of the World's Hall; loss \$75,000.

Tex., Plainview.—Seth Ward Methodist College; loss \$50,000.

Tex., Texila.—Texila Mercantile Co.'s store; loss \$10,000.

Tex., Waco.—Maude M. Young's residence at 2923 Human St., owned by C. R. Hill; loss \$3500.

Va., Alexandria.—Snowden School; loss about \$8000. Address School Trustees.

Va., Berkley, Sta. Norfolk.—J. R. Legum's tenement-house.

Va., Lynchburg.—Luther Robinson's residence in Madison Heights.

Va., Norfolk.—Netherly & Banks' stores; loss \$4500.

W. Va., Borderland.—Borderland Coal Co.'s (main office Roanoke, Va.) No. 2 tripper, washer, bridge and conveyor; loss about \$100,000.

DAMAGED BY STORM

Miss., Summit.—Negro Methodist church. Address The Pastor.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

D. C., Washington.—John L. Warren, Southern Bldg., has plans by Hunter & Bell, Southern Bldg., Washington, for apartment-house at 17th and Fuller Sts.; 81x115 ft.; brick and concrete; slag roof; reinforced concrete floors; vapor heat; electric lights; electric elevators; cost \$100,000; owner will sublet contracts and may be addressed. (Lately noted.)

D. C., Washington.—John L. Barr, 702 The Wyoming, has plans by B. Stanley Simmons, 1340 New York Ave. N. W., Washington, for apartment-house at Wyoming Ave. and 19th St.; reinforced concrete; fireproof; 7 stories; 100x126 ft.; tapestry-brick exterior; limestone and iron grill trim; 32 suites; cost \$200,000; completion by Oct. 1.

D. C., Washington.—Fulton R. Gordon, Agt., Colorado Bldg., is having plans prepared for apartment-house on G St.

Mo., Baltimore.—Clyde N. Frix, Munsey Bldg., is preparing plans for 3-story apartment-house in lake-front section; cost \$25,000; brick and limestone construction.

Mo., Kansas City.—John G. Thistle will erect apartment-house; 3 stories; 24 suites; cost \$22,000.

Mo., Kansas City.—C. O. Jones will erect apartment-house; 3 stories; 28 suites; cost \$30,000.

Mo., St. Louis.—Walter Jones will erect 2 apartment-houses 5 and 6-room suites; hot-water heat; cost \$15,000.

Mo., St. Louis.—Girard Realty & Bldg. Co. will erect two flats. (See Dwellings.)

Okla., Tulsa.—L. A. Giddings will erect apartment-house; 3 stories; brick; cost \$11,000.

Tenn., Chattanooga.—M. A. Fleming will erect store and apartment building. (See Stores.)

Tenn., Nashville.—Miss Belle Chilsum will erect apartment-house; 2 stories; brick; hot-water heat; cost \$14,000; O. J. Billis, Archt., Nashville.

Tenn., Nashville.—E. C. Scruggs has plans by Geo. D. Waller, 57 Arcade, Nashville, for apartment-house; 3 stories; 12 suites; ordinary construction; composition roof; low-pressure steam heat; electric lights; cost \$25,000; plans ready for figures about Apr. 20. Address Archt. (Lately noted.)

Tenn., Nashville.—Kennedy & Stevens have plans by Russell E. Hart, 934 Stahlman Bldg., Nashville, for apartment-house at 203-5 21st Ave. South; 88x49 ft.; 3 stories and basement; brick walls; wood joists; solid plaster partitions, metal studs; composition roof; cost \$18,000; heating plant, \$2000. (Lately noted.)

Tex., San Antonio.—Henry L. Half and others will erect store and apartment building. (See Stores.)

Tex., Waco.—E. M. Cox has plans by Geo. Burnett, Waco, for apartment-house; hollow tile; 10 bathrooms; cost \$30,000.

Tex., Waco.—H. C. Risher, Pres. of Behns Drug Co., has plans by Geo. Burnett, 2121 Cameron Bldg., Waco, for apartment-house; ordinary construction; bids opened April 5; cost \$17,000. (Lately noted.)

Va., Norfolk.—Dr. C. Lydon Harrell opened bids to erect \$25,000 apartment-house at Colonial and Harrington Aves.; C. W. Beard is lowest bidder; Wyckham C. Taylor, Archt., Norfolk. (Lately noted.)

Va., Norfolk.—Agostini Bros. will erect 4-family apartment-house with garage in rear; hot-water heat; cost \$8000.

W. Va., Charleston.—First Church of Christ, Scientist, has plans by H. Rus Warne, Charleston, for apartment-house; 4 stories; brick and hollow tile; A. C. Higginbotham, Archt., Morrison Bldg., Charleston.

W. Va., Wheeling.—Ambrose F. Habig, Wheeling, W. Va., has plans by George W. Pogue, German Bank Bldg., Wheeling, for 3-story hollow-tile and stucco apartment building on N. Main St.; bids asked about Apr. 1.

ASSOCIATION AND FRATERNAL

Ala., Montgomery.—Montgomery Council 893, Knights of Columbus, plans to improve building; install gymnasium, shower baths, library, etc.

Fla., Cocon.—Brevard Masonic Temple Corp. organized by John A. Fiske, W. B. Meyers and E. C. Johnson to erect Masonic temple.

Ga., Dalton.—John Puryear will erect store and lodge building. (See Stores.)

N. C., Greensboro.—Masonic & Eastern Star Home, previously noted having plans by W. G. Rogers, Charlotte, N. C., for addition, postponed erection of structure.

Okla., Wilson.—A. F. and A. M. will erect brick temple.

Tex., Brady.—A. F. & A. M. will erect Masonic temple; cost \$10,000; 3 stories.

Tex., Cleveland.—A. F. and A. M. will soon let contract to erect 2-story brick Masonic temple.

Tex., Sulphur Springs.—I. O. O. F. adopted plans for 2-story lodge building.

Va., Craigsville.—Trustees of Odd Fellows' Lodge will erect bank and lodge building. (See Bank and Office.)

BANK AND OFFICE

Ark., Little Rock.—Bankers' Trust Co., H. L. Remmel, Pres., contemplates erecting two or three additional stories to present structure.

Fla., Clearwater.—Bank of Clearwater will erect store, office and bank building; 75x100 ft.; 2 stories; ordinary construction; date opening bids not set; F. J. Kennard, Archt., Tampa.

Miss., Greenwood.—J. B. Starling, Jackson, Miss., and S. C. Bull, Brookhaven, Miss., are reported interested in organizing bank; contemplate erecting building.

N. C., Bridgeton.—Bank organized by T. N. Holton and Dr. B. B. Smith; is having plans prepared for bank building.

N. C., Cherryville.—First National Bank has plans by Willard G. Rogers, Charlotte (acting for Hook & Rogers, dissolved), for bank, office and masonic building; 39x50 ft.; brick, stone and steel; composition roof; floor construction of tile; oak and gum; low

pressure gravity return heat; electric lights; cost about \$20,000; bids opened about Apr. 14; construction begins about May 1. Address Mr. Rogers, 502 Trust Bldg., Charlotte.

Okla., Miami.—Miami National Bank is having plans prepared by A. H. Mott, Nebraska Bldg., Tulsa, Okla., for 3-story office building; cost \$60,000.

Okla., Oklahoma City.—Ed Cooke, Agent, will expend \$10,000 for improvements to 6th story of Miller Bldg.

Okla., Ringling.—Southwestern Public Service Co. will erect brick office building.

Okla., Tulsa.—B. G. Goble will erect office building on Main St.; probably 3 stories.

Okla., Tulsa.—A. F. Ault will erect additional story to Ault Bldg. at 1st and Boston Sts.; cost \$5000.

S. C., Great Falls.—Great Falls Farming Co. will erect store and office building, etc. (See Dwellings.)

S. C., Lancaster.—Farmers' Bank has plans by Julian S. Starr, Rock Hill, S. C., for late-noted bank and office building; 24.6x90 ft.; 2 stories; brick, stone and frame; metal roof; tile and terrazzo floors; hot-water heat; city electric lights; cost \$10,000; date of opening bids not set; address Archt. (See Machinery Wanted—Building Material, Steel Beams, Flooring and Limestone.)

S. C., Lexington.—Bank of Western Carolina will erect bank building to replace structure noted damaged by fire at loss of \$6000.

Tenn., Friendship.—Farmers' and Merchants' Bank, A. M. Odle, Pres., plans to erect brick bank building.

Tex., San Antonio.—State Bank has plans by Chas. T. Boelhaue and J. Flood Walker, associate architects, San Antonio, for additional story to building; 12 offices; brick and reinforced concrete; tile floors.

Va., Clifton Forge.—Clifton Forge Natl. Bank is having plans prepared by Alfred C. Bosson, 206 Fifth Ave., New York, for 2-story bank building; cost \$40,000.

Va., Craigsville.—Trustees of Odd Fellows' Lodge will erect bank and lodge building on Main St.; 28x40 ft.; 2 stories; ordinary brick construction; metal roof; furnace heat; lighting not determined. Address W. S. Johnson; will be occupied by Bank of Craigsville on the first floor. (See Machinery Wanted—Bank Fixtures.)

Va., Hopewell.—Greek-American Savings Bank, promoted by S. A. Morris, will erect bank building.

Va., Petersburg.—Norfolk & Western Rwy. Co. will erect office building. (See Railway Stations, Sheds, etc.)

W. Va., Charleston.—Citizens' Natl. Bank is having plans prepared to remodel building at Quarrier and Capitol Sts.; cost \$60,000.

CHURCHES

Ark., Heber Springs.—Baptist Church will erect building; brick; concrete foundation; only basement to be erected at present at cost of \$2500; 51x86 ft.; composition roof; B. R. Brown, Archt., Heber Springs. (Lately noted.)

Ark., Stuttgart.—First Christian Church will erect Sunday-school addition. Address The Pastor.

Ga., Cochran.—M. E. Church South, J. H. Peacock, Chrmn. Bldg. Committee, will erect building; 2 stories; 65x65 ft.; ordinary brick; asphalt shingle roof; warm-air heat; cost \$10,000; plans ready about Mch. 25; bids opened about Apr. 10; Chas. W. Carlton, Archt., Lagrange, Ga., and he may be addressed. (Lately noted.)

Ga., Thomasville.—Methodist Church will let contract in about 30 days for addition; 2 stories; brick; slate roof; hot-air heat; C. Frank Gallher, Archt., Montgomery, Ala.

Ky., Paris.—Paris Presbyterian Church is having plans prepared by Geo. Nevin, Louisville, for building; will install pipe organ, etc.

La., Alexandria.—Emmanuel Baptist Church, Rev. W. J. Bolin, pastor, will erect \$20,000 Sunday-school building.

La., New Orleans.—Grace P. E. Church, Rev. A. R. Edbrooke, Rector, will erect building.

Md., Baltimore.—St. Mary Star of the Sea Church, Riverside Ave. and Clement St., Rev. J. T. Whelan, Pastor, will erect convent; 4 stories; terra-cotta, brick and stone; cost \$20,000.

Mo., Kansas City.—Swope Park Baptist Church will erect building; shingle sides; screen porches; roof garden; double fireplace; cottage windows; cost \$6000. Address The Pastor.

N. C., Charlotte.—First Reformed Church, Rev. Shuford Peeler, Pastor, 213 N. Church

St., will erect building; brick; slate roof; hot-air heat; cost \$15,000 to \$20,000. (Lately noted.)

N. C., Greenville.—Immanuel Baptist Church will erect building. Address The Pastor.

N. C., Hickory.—First M. E. Church has plans by Q. E. Herman, Hickory, for Sunday-school addition; 2 rooms; 1-story; brick veneer; 50x130 ft.

Okla., Hollis.—Baptist Church, Rev. L. A. Drumright, pastor, is having plans prepared by Hawk & Parr, Oklahoma City, for \$20,000 building.

Tenn., Chattanooga.—Bethany Church of God at Gold Point will erect building; W. R. Jones, Lou Gann and John Nelson, Trustees.

Tenn., Chattanooga.—Orchard Knob Colored Baptist church will erect brick structure to cost \$12,000 to \$15,000. Address The Pastor.

Tenn., Concord.—Methodist Episcopal Church South, Rev. E. M. Ritchey, Pastor, will erect building; brick veneer; furnace heat.

Tenn., Franklin.—Methodist Episcopal church South has plans by C. K. Colley, Nashville, for brick building; contract let Apr. 8.

Tenn., Murfreesboro.—First Baptist Church rejected bids to erect building; will have plans redrawn by R. H. Hunt, Chattanooga, and take new bids; cost about \$35,000; R. W. Hale Chrmn., Building Comm. (Previously noted.)

Tenn., Nashville.—Woodland Street Christian Church, Rev. J. E. Stuart, Pastor, will erect building to replace burned structure.

Tenn., Nashville.—St. Columbia's Church is having plans prepared by Harry J. Frahm, Nashville, for church and school building; 2 stories; brick; asbestos shingle roof; steam heat; also 2-story brick residence and sodality hall.

Tex., Barstow.—Methodist congregation will erect bungalow church building. Address The Pastor.

Tex., Colorado.—Methodist church will erect 2-story parsonage. Address The Pastor.

Tex., Cooper.—Catholic church plans to erect building; Rev. J. A. Allard, Paris, Tex., is interested.

Va., Lynchburg.—Westminster Presbyterian Church will expend \$10,000 to \$12,000 to improve building at 9th and Church Sts.; will construct slate roof, provide tower, etc.; Rev. Wallace T. Palmer, pastor.

Va., Roanoke.—Second Presbyterian Church will erect brick and stone \$14,000 Sunday-school building. Address The Pastor.

CITY AND COUNTY

Ark., Pine Bluff.—Library.—City contemplates erecting \$50,000 library. Address The Mayor.

Fla., Clearwater.—Library.—City is having plans prepared by Francis J. Kennard, American National Bank Bldg., Tampa, for Carnegie library; date for opening bids not set. (Lately noted.)

Fla., Orlando.—Orange County Commissioners are having plans prepared by L. Percival Hutton, Orlando, for jail; 36x73 ft.; brick and tile; east-stone trimmed; Barrett specification; five-ply roofing; reinforced concrete flooring; cost \$25,000; steam heat \$800; plans completed in about 10 days. (Lately noted.)

Fla., Tampa.—Barn.—Hillsborough County Comms., W. P. Culbreath, Clerk, receive bids until Apr. 18 to erect stock barn on County Farm and Hospital grounds; plans and specifications at office of Bonfoey & Elliott, Archts., Tampa.

Ky., Jackson.—Jail.—Breathitt county receives bids until Apr. 18 to erect jail; cells and iron in old jail to be used in construction of new structure; figure on construction of first, stone; second, brick; plans and specification at office County Judge. (Previously noted.)

Md., Leonardtown.—Almshouse.—House of Delegates passed bill authorizing St. Mary's County Comms. to erect almshouse.

Miss., Moss Point.—Fire Stations.—Moss Point Fire Co. will erect building; 2 stories; frame; 27x40 ft.; W. H. Bragg, Fire Chief.

Tex., Paris.—Jail.—Lamar County Comms. will probably repair jail lately noted damaged by fire.

Va., Norfolk.—Stable.—Board of Control let contract to erect stable for Norfolk Light Artillery Blues to A. F. Smith, Norfolk, at \$7325; plans by B. F. Mitchell, Norfolk, call for structure 80x53 ft., with wing 20x20 ft.; 2 stories; brick and frame; tar and gravel

roof; concrete and wood floors; electric lights. (Lately noted.)

Va., Norfolk.—Market.—Public Improvement Com. approved plans by Benj. F. Mitchell, Norfolk, for market; brick; 250x160 ft.; 40 ft. high; aisles and bases of stalls of tile; all stalls provided with drainage, water, gas, telephone and refrigerator plants; tower equipped with central refrigerator plant and mezzanine floor with storage boxes, offices, etc.; floor supported by piling; cost \$30,000. (Previously noted.)

COURTHOUSES

Mo., Ava.—County contemplates erecting \$50,000 to \$75,000 courthouse. Address County Comms.

Ga., Leesburg.—Lee county voted \$50,000 bonds to erect courthouse. Address Chrmn. County Comms.

Mo., Bethany.—Harrison county votes Apr. 18 on bond issue to erect courthouse; L. X. Brown, County Clerk. (Lately noted to cost \$75,000 to \$100,000.)

Okla., Oklahoma City.—Treasury Dept. rejected bids to erect extension to postoffice and courthouse. (See Government and State.)

Tenn., Johnson City.—Washington county votes Apr. 29 on \$37,500 bonds to erect courthouse. Address County Comms.

Tex., Lipscomb.—Lipscomb county has plans by W. M. Rice, Amarillo, Tex., for courthouse; 60x71 ft.; 2 stories and basement; fireproof; metal tile roof; steam heat; electric wiring; bids opened April 10; date beginning construction not determined; cost \$28,000. Address W. H. Sewell, Lipscomb. (Lately noted.)

Tex., Sweetwater.—Nolan county voted \$100,000 bonds to erect courthouse. Address County Comms. (Lately noted.)

DWELLINGS

Ala., Birmingham.—A. B. W. Johnson will erect 2-story frame residence; cost \$500.

Ala., Gadsden.—A. E. Goodhue will erect 5 dwellings; cost \$3250.

Ark., Little Rock.—J. H. Knutson will erect residence.

Ark., Little Rock.—J. W. Jones will erect residence in Elmhurst.

D. C., Washington.—Sidney Paige, 239 Macomb St. N. W., Washington, will erect \$10,000 residence; plans in progress.

D. C., Washington.—Chas. F. Longfellow, 3038 R St. N. W., will erect 2-story frame dwelling; cost \$3500.

D. C., Washington.—James H. Smith, 708 E St. S. W., has plans by L. H. Sinclair, 22 Shepherd St. N. W., for two 2-story brick dwellings; cost \$3000; construction by owner.

D. C., Washington.—Henry L. Breuninger, 5500 16th St. N. W., will erect 2 dwellings at 5203-05 Colorado Ave. N. W.; cost \$22,000; plans and construction by owner.

D. C., Washington.—John R. Halslip has plans by Edward O. Volland, 1348 Kearney St. N. E., for three 2-story brick dwellings; cost \$7500; construction by owner.

D. C., Washington.—H. A. Kite, 1338 G St. N. W., has plans by Geo. T. Santmyers, 26 Kenols Bldg., Washington, for 6 one-story frame dwellings and one 2-story frame dwelling; cost \$10,500; construction by owner.

D. C., Washington.—A. C. Moses Company, 916 New York Ave., will erect ten 16-room dwellings; brick; dark Spanish slag and tile roof; hot-water heat; construction begun. (Lately noted.)

Fla., Jacksonville.—William Meier will erect 1-story frame dwelling; cost \$3500.

Fla., Miami.—C. M. Brown will probably erect residence.

Fla., Sarasota.—J. A. Shade will erect bungalow.

Fla., St. Augustine.—J. M. Kirkpatrick will erect residence.

Fla., Tampa.—W. E. Lucas will erect residence.

Fla., West Palm Beach.—Steven E. Shroads will erect residence.

Fla., Lake Hamilton.—W. J. Hovey will erect residence.

Fla., Lake Hamilton.—William Stillwell, Colorado Springs, Col., is reported to erect residence.

Fla., Tampa.—N. Di Maggia will erect \$3500 dwelling.

Fla., Tampa.—Curtis & Adams, Agts., will erect residence; 2 stories; brick veneer; owner's name withheld.

Ga., Atlanta.—W. A. Brightwell will erect 2 frame dwellings; cost \$4000; day labor.

Ga., Atlanta.—W. T. Butler & Son will erect two 1-story frame dwellings; cost \$750.

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Ga., Atlanta.—S. R. Jacobs will erect 1-story brick-vener bungalow; cost \$3000.
Ga., Atlanta.—M. L. Rauschenberg will erect 2-story frame dwelling; day labor; cost \$4000.
Ga., Atlanta.—Mrs. Emma V. Hudson will erect 2-story brick-vener dwelling; cost \$500; day labor.
Ga., Atlanta.—G. N. Morris will erect 1-story frame dwelling; day labor; cost \$5000.
Ga., Savannah.—Mrs. Burton C. Mason will erect residence.
Ga., Savannah.—F. C. Sheppard will erect residence.
Ga., Savannah.—Paul E. Seabrook has plans by H. W. Witcover, Savannah, for residence; 2 stories; frame; 8 rooms; slate roof; cost \$8000; plans ready May 1.
Ga., Savannah.—C. G. Wilkinson has plans by E. W. Young, 503 American Bank Bldg., Savannah, for residence; 2 stories; frame; steam heat; hardwood floors; metal roof; cost \$7000; Olaf Otto, Savannah, is lowest bidder.
Ky., Lexington.—Davis & Wilkerson will erect 5 dwellings.
Ky., Lexington.—R. M. Squires will erect residence.
Ky., Lexington.—C. W. Dorne will erect 2 frame cottages; 4 rooms each; stone foundation; also 6-room frame cottages; stone foundation; cost \$7500.
Ky., Lexington.—Chinn & Lawwill will erect two cottages; 6 and 7 rooms; 1-story; frame and stucco; cost \$6000.
Ky., Louisville.—Sam H. Stone Bldg. Co. will erect 4 frame dwellings; cost \$4600.
Ky., Louisville.—Meyer Lang will erect brick-vener dwelling; cost \$3500.
Ky., Louisville.—Sam H. Stone Building Co. will erect 4 frame dwellings; cost \$4600.
Ky., Louisville.—Meyer Lang will erect brick-vener dwelling at 4093 W. Broadway; cost \$500.
La., New Orleans.—J. B. Levert will erect 2-story residence at 7019 Freret St.; cost \$200.
Md., Baltimore.—Philip C. Mueller Building Co., 22 Gunther Bldg., will erect 18 dwellings on Guilford Ave. between University Parkway and Southway; 22x36 ft.; brick; slate roof; hot-water heat; gas and electric lighting; cost \$57,000; construction by owner; Flournoy & Flournoy, Architects, 1517 H St. N. W., Washington, D. C., and Baltimore. Address owner. (Lately noted.)
Md., Baltimore.—A. Crawford Smith, 2013 N. Charles St., trustee, has plans by Callis & Callis, 2055 Kennedy Ave., Baltimore, for four 2-story brick dwellings on 34th St.; 14x15 ft.; cost \$5000.
Md., Baltimore.—Mrs. Mary Kennedy will have plans by Geo. R. Callis, 55 Knickerbocker Bldg., Baltimore, ready in about a week for residence on St. Paul-St. Blvd., Guilford; 56x48 ft., with wing 22x28 ft.; stone; slate and tin roof; wood floors; Farquar heating plant; electric lights; cost \$30,000. Address Archt. (Previously noted.)
Md., Baltimore.—Francis E. Yewell, 337 Title Bldg., will erect 10 residences at University Parkway and Roland Ave.; 22x48 ft.; colonial brick; 2½ stories; English style; cost \$80,000.
Md., Baltimore.—Richard von Hohenhoff, 530 Harford Ave., acquired 200-ft. site at Barclay and 27th Sts. and will erect number of 2-story dwellings.
Md., Mt. Washington.—John H. Walker, 312 Powhatan Ave., Baltimore, will erect 2-story dwelling at Hill Top Park.
Miss., Cleveland.—Mrs. E. R. McLean has plans by Not & Ward, Cleveland, for residence; 9 rooms; frame; plastered walls; hardwood and pine floors; grates; electric lights; cost \$3500; concrete sidewalks about \$100; construction begins in about 10 days. (Lately noted damaged by fire.)
Miss., Greenville.—W. L. Shelton has plans by John Galsford, Memphis, Tenn., to erect lately-noted \$4000 bungalow; date of opening bids not set. (See Machinery Wanted—Mantels.)
Mo., Kansas City.—L. F. Phillips, 4126 Chestnut St., will erect residence.
Mo., Kansas City.—Harold A. Smith, business manager of Daily Record, will erect residence.
Mo., Kansas City.—R. S. Wilcox, with Browning, King & Co., will erect residence.
Mo., Kansas City.—J. M. Clark will erect residence on Bellefontaine Ave.
Mo., Kansas City.—C. C. Peters, Secy. Emery-Bird-Thayer Dry Goods Co., will erect residence; Georgian style; 19 rooms; 2 sleeping porches; 5 bathrooms; stone foundation; tapestry brick superstructure; laundry; heating plant and fruit closets in basement; rustic stone walls in card and billiard rooms; living-rooms 19x24 ft.; Henry F. Holt, Archt., Kansas City; Hare & Hare, Landscape Archts.
Mo., Kansas City.—Floyd and Corn Campbell will erect 2-story stucco dwelling; cost \$5000.
Mo., Kansas City.—William West will erect 1-story frame dwelling; cost \$3000.
Mo., Kansas City.—A. M. Clark will erect 2-story stucco dwelling; cost \$3000.
Mo., Kansas City.—W. R. Hill, Chrmn. Directors Ashgrove Lime & Portland Cement Co., will erect residence.
Mo., Kansas City.—Terminal Investment Co. will erect residence.
Mo., Kansas City.—G. E. Baltis will erect residence on Benton Blvd.
Mo., Kansas City.—F. N. Peters will erect residence in Maryland addition.
Mo., Kansas City.—Zurn Building & Investment Co. will erect three 2-story stucco dwellings; cost \$9000.
Mo., Kansas City.—Shepherd & Belcher will erect 2-story brick-vener dwelling; cost \$17,500.
Mo., Kansas City.—Frederick H. Michaels, 1113 McGee St., will erect residence.
Mo., Kansas City.—C. C. Peters, Secy. Emery, Bird, Thayer Dry Goods Co., will erect residence; Georgian style; Henry F. Holt, Archt., Kansas City.
Mo., Kansas City.—C. W. Cupler will erect residence.
Mo., Kansas City.—A. B. McCarkle will erect 2-story frame dwelling; cost \$3000.
Mo., Kansas City.—Chas. W. Smith will erect 2-story stucco dwelling; cost \$5000.
Mo., Kansas City.—A. E. Blackett will erect 2-story brick dwelling; cost \$7500.
Mo., St. Louis.—Glard Realty & Building Co. will erect 6-room residence at 5015 Murdock Ave.; also 2 single 4 and 5-room flats at 5040-42 Murdock Ave.; tile baths; brick porches; art-glass windows, etc.
Mo., St. Louis.—Rannels Investment Co., James A. Davis, Prest., will erect 30 bungalows; 5, 6 and 7 rooms; hard-matt brick; stone foundations; slate and tile roofing; cost \$200,000.
N. C., Asheville.—J. R. Rice, 7 Austin Ave., will erect \$3000 7-room residence.
N. C., Asheville.—John A. Nichols will erect residence to cost several thousand dollars.
N. C., Franklin.—W. W. Jones is having plans prepared by Charles Edward Choate, Candler Bldg., Atlanta, for residence; stucco; asphalt slate roof.
N. C., Greensboro.—J. E. Latham Co. will erect 6 two-story residences on Bessemer Ave. and Virginia Ave.; cost \$24,000.
N. C., Greensboro.—J. S. Boggs will erect 2-story frame residence; cost \$4000.
N. C., Hickory.—R. O. Abernathy will erect bungalow; 1-story and basement; Q. E. Herman, Archt., Hickory.
N. C., Wilmington.—Tidewater Power Co. will erect 2 dwellings near Audubon Station.
N. C., Wilmington.—Fidelity Trust & Development Co. will erect 17 residences in Sunset Park.
Okla., Oklahoma City.—H. S. Clark will erect 1-story brick dwelling; cost \$4500.
Okla., Oklahoma City.—Hawk & Parr, Oklahoma City, are preparing plans for 8 residences to cost \$8000 to \$15,000, and several business buildings.
Okla., Ponca City.—E. W. Marland is having plans prepared by Layton & Smith, Oklahoma City, for \$25,000 residence.
Okla., Oklahoma City.—L. G. Rosenthal has plans by Bailey & Bailey, Oklahoma City, for \$10,000 residence.
Okla., Oklahoma City.—Snowden Parlette will erect \$6000 residence; Bailey & Bailey, Architects, Oklahoma City.
Okla., Oklahoma City.—Nicholas & Chandler will erect two 2-story frame residences at 219 E. 13th St. and 3415 Classen Blvd.; cost \$8000.
Okla., Tulsa.—J. L. Essley will erect 2-story frame residence and garage; cost \$4600.
Okla., Tulsa.—F. M. Wooden will erect 2-story frame residence and 1-story frame residence; cost \$4500.
S. C., Chester.—Miss Maggie Edwards will erect residence.
S. C., Chester.—Miss Helen Hood will erect residence.
S. C., Great Falls.—Great Falls Farming Co. has plans by Julian S. Starr, Rock Hill, S. C., for improvements to include 9-room dwelling; 3 baths; hot-water heat; frame

construction; cedar shingle roof; also 5-room bungalows for Secy. and Farm Supt.; garage for 4 cars; storeroom and office building; barn, 100x125 ft.; 2 stories; accommodations for 24 mules; 2 corn and grain cribs, 11½x50 ft., with cement floors; first floor concrete; composition roof.
S. C., Greenville.—H. P. Burbage will erect residence.
S. C., Rock Hill.—John Hoke is having plans prepared for residence; 2 stories; 9 rooms; frame; 2 bathrooms; Neponset shingle roof.
Tenn., Buntyn.—Dr. W. J. Hunt, Tennessee Trust Bldg., Memphis, has plans by Regan & Weller, 834-5 Bank of Commerce & Trust Bldg., Memphis, for bungalow; frame; 31½x71½ ft.; stucco exterior; asphalt shingle roof; cost \$3500; hot-water heat about \$200; wiring and fixtures \$100. Address Owner. (Lately noted.)
Tenn., Chattanooga.—Smith Bros. will erect brick dwelling. (See Stores.)
Tenn., Chattanooga.—Fred Bryan will erect dwelling; 7 rooms; brick and stucco.
Tenn., Chattanooga.—Stephen Doughton of Nelson-Chesman Co. will erect residence; completion by August.
Tenn., Chattanooga.—W. P. McBroom will erect residence to replace structure lately noted damaged by fire; fireproof roofing; hardwood floors; steam or hot-water heat to cost \$500 to \$600; other details not determined.
Tenn., Nashville.—E. F. Langford has plans by Chas. A. Ferguson, Nashville, for residence on Gallatin Rd.; 2 stories; stone veneer; contract let Apr. 4.
Tenn., Memphis.—W. C. Chandler will erect two 1-story 6 and 7-room residences; stone and brick-vener; cost \$5500; steam heat.
Tenn., Memphis.—J. A. Haley will erect 1-story residence; 7 rooms; brick veneer; cost \$3000.
Tenn., Memphis.—T. W. Ham has plans by Regan & Weller, 834-5 Bank of Commerce & Tr. Bldg., Memphis, for semi-bungalow; brick veneer; asphalt-shingle roof; cost \$3500; hot-water heat, about \$300; wiring and fixtures \$125. Address Archts. (Lately noted.)
Tenn., Memphis.—W. F. Houck, care of Perkins Oil Co., will erect residence; 33x48½ ft.; frame and stucco; cypress shingle roof; hardwood floors; cost \$2500; hot-water heat, \$350; lighting, about \$100; garage, \$500; plans by and construction superintended by G. B. Wilson, Memphis. (Lately noted.)
Tenn., Nashville.—Frank Thomas will erect 1-story brick-vener bungalow; composition roof; cost \$3000.
Tenn., Nashville.—J. M. Hosale will erect 1½-story brick bungalow; composition roof; cost \$3000.
Tenn., Nashville.—Mrs. John Hill Eakin has plans by Marr & Holmann, Nashville, for residence in Sunset Park; 1 story; shingle construction and roof; wood floors; steam heat; cost \$4000. (Lately noted.)
Tex., Austin.—Mrs. C. C. Bradford will erect 5 dwellings; cost \$6300.
Tex., Dallas.—Dr. Majors will erect 2 residences.
Tex., Dallas.—J. W. Halsell will erect 2 brick dwellings.
Tex., Dallas.—K. K. Spooner will erect brick residence.
Tex., El Paso.—J. G. Long will erect bungalow; cost \$3000.
Tex., El Paso.—Phoenix-El Paso Building Co. will erect residence on N. Stanton St.; cost \$5500.
Tex., El Paso.—H. T. Hadfield will erect 3 bungalows on Cedar St.; cost \$6000.
Tex., Henrietta.—J. F. Alcorn will erect several dwellings.
Tex., Houston.—B. C. Moore will erect residence.
Tex., Houston.—J. O. Goodman plans to erect residence.
Tex., Lometa.—W. M. Swalm will erect \$3500 dwelling.
Tex., San Antonio.—Mrs. M. Reed will erect 2-story dwelling; cost \$5500.
Tex., San Antonio.—H. C. Thorman will erect two 5-room residences; cost \$3300.
Tex., San Antonio.—Wm. Henry Haggard, Rockford, Ill., is reported to erect winter residence about 5 mi. from San Antonio.
Tex., San Antonio.—Mrs. L. Kaufmann will erect 2-story dwelling; cost \$6900.
Tex., San Antonio.—W. E. Lowry will erect 2-story dwelling; cost \$4900.
Tex., San Antonio.—W. D. Syers will erect two 5-room dwellings; cost \$3200.
Tex., San Antonio.—P. O. Hoefgen will erect 2-story dwelling; cost \$6000.

Tex., San Antonio.—W. L. Morrow will erect 6-room dwelling; cost \$3100.
Tex., Sulphur Springs.—B. F. Ashcroft will erect 8-room brick residence.
Tex., Sulphur Springs.—C. B. Henderson will erect 7-room bungalow.
Tex., Sulphur Springs.—J. B. Thomas will erect 2-story residence.
Va., Hopewell.—Robert Xavier Glering, P. O. Box 178, Hopewell, Va., will erect one 7-room bungalow.
Va., Lynchburg.—J. W. Woodson and J. P. Williamson will erect \$4000 stucco dwelling.
Va., Norfolk.—Lee Counselman has plans by Neff & Thompson, Norfolk, for 2 residences; brick; cost \$5000.
Va., Roanoke.—J. E. Huff will erect 2-story brick-cased \$10,000 dwelling.
Va., Roanoke.—Mary L. Cole will expend \$3000 to repair dwelling on Washington Ave. east of Franklin Rd.
Va., Richmond.—C. B. Hickerson will erect brick dwelling; cost \$3800.
Va., Richmond.—J. Lee Davis and W. S. Bell will erect 2-story brick dwelling; cost \$15,000.
Va., Richmond.—R. H. and J. H. Alvis will erect 2-story frame dwelling; cost \$3500.
Va., Richmond.—Davis & Archer, 2515 Hanover Ave., have plans by C. H. Archer, 2517 Hanover Ave., Richmond, for dwelling at 310 Mulberry St.; 40x52 ft.; brick; tin roof; cost \$900; construction by owners, who may be addressed.
W. Va., Charleston.—G. T. Nutter has plans by David Dick, Capitol St., Charleston, for residence; 2 stories; frame; cost \$4500.
W. Va., Charleston.—John W. Sparks has plans by A. C. Higginbotham, Morrison Bldg., Charleston, for residence; 2½ stories; hollow tile and stucco; cost \$10,000.
W. Va., Charleston.—William M. MacCorkle is having plans prepared by G. Higginbotham, Harvey Bldg., Charleston, for residence; 2½ stories; cost \$20,000.
W. Va., Marlinton.—S. H. Sharp contemplates erecting residence.
W. Va., Marlinton.—J. A. Hoover will erect 9-room residence.

GOVERNMENT AND STATE

Ga., Fort Oglethorpe.—Storehouse and Barracks.—Government will erect 30-ft. storehouse and 40-ft. quartermaster's barracks at Fort Oglethorpe; frame and galvanized iron; galvanized iron and shingle roof; pine floors; steam heat; electric lights; cost \$7000; Major Rockenbach, Commandant.
La., Bogalusa.—Armory.—Company G, 1st Infantry, Louisiana National Guard, has plans by Rathbone DeBuys, Ithbernia Bank Bldg., New Orleans, for armory; 80x140 ft.; frame; steel roof trusses; Turnerized roofing; yellow pine floor; cost \$8000; bids open May 1. Address Louis F. Guerre, Capt.
Miss., Jackson.—Capitol.—Senate passed bill authorizing Capitol Commission to repair State-house and providing \$125,000 bonds for construction work.
Okla., Oklahoma City.—Postoffice and Courthouse.—Treasury Dept., James A. Wetmore, Acting Supervising Archt., Washington, D. C., rejected all bids to erect extension to postoffice and courthouse; will have plans revised and call for supplementary bids; date of opening bids not set. (Lately noted.)
Fla., Orlando.—Directors of St. Luke's Hospital are having plans prepared by L. Percival Hutton, Orlando, for hospital building No. 1; clay and stucco; cast-stone trimmed; 36x79 ft.; non-dreproof, except stairs and elevator; cost \$20,000; steam heat \$2000; plans completed in about 10 days.
Fla., West Palm Beach.—West Palm Beach Relief Assn. will erect hospital. Geo. W. Potter, trustee for purchase of site.
Ky., Ashland.—King's Daughters will erect hospital.
Md., La Plata.—Legislature appropriated \$10,000 to erect Southern Maryland Emergency Hospital. Address Charles County Commrs.
Miss., Greenwood.—King's Daughters plan to erect \$30,000 hospital.
Miss., Laurel.—City is considering election on \$30,000 bonds to erect hospital. Address The Mayor.
Mo., St. Louis.—Rev. James M. Sullivan, chaplain for Sisters of Charity of Saint Vincent de Paul, is reported interested in erection of Mullanthy Hospital.

Va., Hopewell.—Hopewell Associated Charities will erect emergency hospital; administration building, 50x75 ft.; two wings, 50x150 ft.; concrete construction; tile, slate or slag roof; tile floors; hot-water heat; electric lights; 2 elevators to roof garden. Address Robert Xavier Giering, P. O. Box 178. (Lately noted.)

Va., Suffolk.—Drs. J. E. and D. L. Rawles and Dr. D. L. Harrell will enlarge Lake View Hospital; provide two the operating-rooms with sterilizing rooms; roof garden and sun parlor, 80x10 ft.; elevator service, etc.

HOTELS

Ala., New Decatur.—Horton & Hodge are reported to erect additional story to Echals Hotel; contain 25 rooms.

Ala., New Decatur.—Polytinski Hotel will complete structure; 75 guestrooms; A. D. Wiedensel, Mgr., Sheffield Hotel, Sheffield, Ala.

Ala., York.—R. J. Mackorell and H. T. Williams are considering erecting hotel at Crawford Springs.

Fla., Daytona.—Albert Bennett, Prop., Bennett Hotel, North Ridgewood Ave., will improve hotel.

Fla., Daytona Beach.—W. F. Ayres will erect addition to hotel; 60x150 ft.; frame; tile roof; flooring, heating and lighting not decided; cement sidewalks; cost \$25,000; bids open about May 1 and construction begins about May 15. (Lately noted.)

Fla., Miami.—John H. Havlin, Miami and Indianapolis, Ind., will remodel Havlin Block for hotel; 34 rooms; steam heat.

Fla., Tampa.—J. M. Harvey will erect store and hotel building. (See Stores.)

Fla., Wilbur.—J. W. Wilbur will erect hotel at Wilbur-by-the-Sea; 75 rooms, 39 equipped with private baths; fireproof; steam heat; electric lights; telephone in each room; 2 stories; frame and stucco; cost \$25,000; S. H. Gove, Archt., Daytona, Fla. (See Machinery Wanted—Building Materials.)

Ky., Fort Thomas.—Altamont Springs Hotel Co. is having plans prepared by S. Hannaford & Sons, Hubert Block, Cincinnati, for hotel improvements.

Ky., Bowling Green.—Mansard Hotel will erect addition to hotel; 25 rooms.

La., New Orleans.—J. E. Salles will erect 5 story hotel building.

Md., Baltimore.—Patrick Kirwan, 104 W. Fayette St., acquired building at 108 W. Fayette St. and will expend \$10,000 to remodel for hotel; dining-room on first floor, 30x58 ft.; capacity for 200; upper floors, hotel.

Md., Baltimore.—Southern Hotel Co., Calvert Bldg., is having plans prepared by Otto G. Simonson, Maryland Casualty Tower Bldg., Baltimore, for hotel at Light and German Sts.; 92.6x148 ft.; steel frame; curtain walls; terra-cotta floor arches; promenade tile roof; cement, tile, wood and terra-cotta floors; three 150 H. P. boilers for steam-heating plant; electric lighting supplied by 3 generators of 100, 125 and 175 K. W.; granite sidewalks and vault lights; 3 electric traction high-speed elevators and 3 lifts; plans probably in market in two or three months; cost \$750,000. (Lately noted.)

N. C., High Rock.—W. A. Roberts, M. E. Overaker, J. E. Jones and others are promoting erection of resort hotel.

N. C., Morehead City.—Norfolk Southern R. R., F. L. Nicholson, Ch. Engr., Norfolk, will improve Atlantic Hotel.

N. C., West Jefferson.—West Jefferson Hotel Co. has plans by Clarence B. Kearfott, Bristol, Tenn., for building; 50x110 ft.; 2 stories and basement; brick walls; ordinary joist construction; composition roof; concrete and wood joist floor construction; steam heat; city electric lights; cost \$10,000; store, bank and offices on first floor; hotel above; construction by day labor, under supervision of H. C. Tucker, West Jefferson, who may be addressed. (See Machinery Wanted—Glass, Steel Beams, Vault Doors, Banking Fixtures.)

Okla., Tulsa.—R. W. Smith will remodel building for stores and hotel. (See Stores.)

S. C., Lexington.—Meete & Son will erect hotel to replace structure lately noted damaged by fire; brick.

S. C., Spartansburg.—W. T. Finch is reported to erect hotel; 5 or 6 stories; 80 bedrooms, each with bath; steam heat; will connect with present structure; cost \$75,000.

Tenn., Chattanooga.—Chamber of Commerce is promoting erection of hotel on Lookout Mountain; W. E. Brock (Chrmn.), C. G. Milligan, F. W. Hoover and others, Com.; C. H. Huston, Prest. Chamber of Commerce, wires Manufacturers Record: "Plans con-

template 300-room fireproof hotel, but not progressed far enough to announce architect or lessee; estimated cost \$300,000, provided by local interest; matters in shape to proceed as soon as details are closed with lessee."

Tenn., Knoxville.—Knoxville Hotel Co. incorporated with \$250,000 capital by W. Shields, H. M. Johnston, J. B. Pound, Chattanooga, Tenn., and others; plans to erect fireproof hotel at Gay St. and Church Ave.; 100x135 ft.; 10 stories and basement; reinforced steel concrete construction; brick-veneer exterior; Tennessee marble trimmings.

Tex., Dallas.—Oriental Hotel Assn., Walter Schaller, Prest., St. Louis; Otto Herold, V. P. and Gen. Mgr., Dallas, and Festus J. Wade, Secy. and Treas., St. Louis, is reported to erect 14-story hotel building.

Va., Hopewell.—D. N. Chadwick, Jr., L. W. Davis, U. A. Underwood, S. Seigler, Jr., of Wilmington, N. C., will erect 50-room hotel; steam heat; electric lights; cost \$2500

W. Va., Fairmont.—Fairmont Hotel Co. lets contract about June 1 to erect hotel; 120x150 ft.; steel frame; fireproof; slag roof; flat tile arch floor construction; steam heat; electric lights; 2 elevators; cost \$300,000; Milburn, Heister & Co., Archts., 710 14th St. N. W., Washington, D. C. (Lately noted to have let contract to McClintic-Marshall Construction Co., Pittsburgh, for steel shapes.)

MISCELLANEOUS

Ala., Mobile.—Clubhouse.—Mobile Country Club plans to issue \$75,000 bonds to improve grounds and erect clubhouse at Spring Hill.

Ark., Little Rock.—Home.—Florence Crittenton Home, Elizabeth Pollock, Prest., Executive Com., will rebuild home noted damaged by fire at loss of \$14,000.

Fla., Pensacola.—Fair.—Escambia County Fair Assn. will enlarge and remodel fair buildings.

Fla., Tampa.—Citadel.—Salvation Army will erect building; 2 stories; pressed brick; lower floor for auditorium; second floor, emergency home and officers' rooms; A. C. Clewis, T. C. Tallafiero and others, committee.

Ga., Americus.—Fair.—Third Dist. Agri. Fair, G. R. Ellis, Prest., plans to erect 10 to 20 cheap construction fair buildings.

Ga., Savannah.—Orphanage.—Colonial Dames will erect chapel at Bethesda Home; red pressed brick; seating capacity, 140; 26x35 ft.; tin roof; cost \$4500; H. W. Whitcover, Archt., Savannah.

Ga., Savannah.—Clubhouse.—Savannah Golf Club receives bids until April 20 for clubhouse; 2 stories and basement; brick; mill construction; built-up tar and gravel roof; electric lights; hand lift elevator and 2 dumbwaiters; plans ready April 5; cost \$22,000; steam heat, \$1800; Edward Warren Young, Archt., 503 American Bank Bldg., Savannah. (Noted in Jan.)

Ky., Louisville.—Clubhouse.—Audubon Country Club is having plans prepared by Ward & Glossop, Louisville, for clubhouse to replace burned structure; R. C. Pinkhead, Prest.

La., New Orleans.—Restaurant.—John R. Thompson Co., Chicago, will erect restaurant building on Canal St.; 3 stories; white glazed terra-cotta front; Pavrot & Livaudais, Archts., New Orleans.

La., New Orleans.—Sheds.—Lane Mills will erect two 1-story brick sheds; cost \$25,000.

La., New Orleans.—Clubhouse.—Southern Yacht Club will expend \$7100 to alter clubhouse.

N. C., Kinston.—Fair.—Kinston Fair Directors plan to erect additional exhibit buildings and annexes.

Okla., Norman.—Fraternity.—Sigma Alpha Epsilon Fraternity has plans by Layton & Smith, Oklahoma City, for fraternity building; lower floor for reception hall, library, dining-room, etc.; upper floor for guestroom and 15 bedrooms; cost \$15,000.

S. C., Great Falls.—Barn.—Great Falls Farming Co. will erect barn, etc. (See Dwellings.)

S. C., Lexington.—Stable.—F. L. Haman will erect stable to replace burned structure.

Tenn., Nashville.—Home.—Little Sisters of the Poor will rebuild structure lately noted damaged by fire.

Tex., Abilene.—Orphanage.—Rescue, Orphan and Industrial Homes, L. S. Arthur, Prest., will erect orphanage for colored children.

Tex., Austin.—Clubhouse.—Austin Country Club has plans by Dennis R. Walsh, Austin, for addition to and remodeling clubhouse; hardwood floors; cost \$12,000; hot-air heat; \$600; O. H. Millican, Secy. (Lately noted.)

Tex., Denison.—Clubhouse.—Woodlawn Country Club receives bids through John Talloch, Archt., Linz Annex, Sherman, Tex., until Apr. 12 to erect concrete, brick and tile country club midway between Denison and Sherman; plans and specifications at office of architect.

Tex., El Paso.—Market.—R. M. Dudley plans to erect market.

Tex., San Antonio.—Clubhouse.—San Antonio Country Club will rebuild clubhouse lately noted damaged by fire; architect not selected.

Tex., Wichita Falls.—Barn.—Joseph A. Kemp will double capacity of dairy barn.

RAILWAY STATIONS, SHEDS, ETC.

Ky., Paducah.—Chicago, Burlington & Quincy R. R. Co., T. E. Calvert, Chf. Engr., Chicago, and Nashville, Chattanooga & St. Louis Rwy., H. McDonald, Chf. Engr., Nashville, are reported to erect passenger and freight stations and other terminal facilities.

Md., Baltimore.—Baltimore & Ohio R. R., F. L. Stuart, Ch. Engr., will erect building at Pennington and Patapsco Sts.; 140x230 ft.; 2 stories; first floor for offices Wells, Fargo & Co. Express; second floor, reading-room and lounging quarters for railroad employees; concrete and tile; fireproof; slate roof; concrete and wood floors; construction by company's force.

N. C., Cary.—Seaboard Air Line Ry., W. D. Faucette, Ch. Engr., Norfolk, Va., and Southern Ry. Co., W. H. Wells, Ch. Engr., Construction, Washington, D. C., are reported to erect Union Station.

N. C., Charlotte.—Seaboard Air Line Ry., W. D. Faucette, Ch. Engr., Norfolk, Va., completed plans for passenger station; concrete fireproof construction; 2 stories; 300 ft. of sheds, extending along front and rear; cost \$21,738. (Noted in Jan.)

Okla., Armore.—Atchison, Topeka & Santa Fe Ry. Co., C. F. W. Felt, Ch. Engr., Chicago, plans to erect 1-story brick freight-house; 32x234 ft.; 54-ft. office, 100 ft. for storage space; concrete foundation; 60-ft. covered platform; also erect 1-story stucco and brick passenger depot; 28x181 ft.; concrete foundation.

Tenn., Erwin.—Carolina, Clinchfield & Ohio Rwy., Ward Crosby, Ch. Engr., Johnson City, Tenn., will erect steel shed for passenger cars; 40x378 ft.; ingot iron corrugated sheet roofing; construction by company's force.

Tex., Lockhart.—Missouri, Kansas & Texas Ry. Co., Leon F. Lonnbladh, Ch. Engr., Dallas, will rebuild station lately reported damaged by fire at loss of \$20,000.

Va., Petersburg.—Norfolk & Western Ry. Co., J. E. Crawford, Ch. Engr., Roanoke, Va., will erect office building; cost \$45,000.

W. Va., Charleston.—Charleston Interurban Ry. Co. will erect \$25,000 freight and passenger station; 2 stories; brick; upper floor for offices.

SCHOOLS

Ala., Carbon Hill.—Trustees will erect school building.

Ala., Florence.—City will vote on \$50,000 bonds to erect school; M. M. Striplin, Commr.

Ala., New Decatur.—City is having plans prepared for \$50,000 high school. Address The Mayor.

Ala., Montgomery.—Alabama Masonic Home, Ben M. Jacobs, Chrmn., postponed erection of school and improvements to home. (Lately noted.)

Ark., Hagler.—Hagler School Dist. lets contract Apr. 8 to erect school; 6 rooms; galvanized roofing; wood heaters; cost \$6000; Joseph H. Bliss, Archt., Hope, Ark. (Lately noted.)

Fla., Cocoa.—City voted \$50,000 bonds to erect high school in Dist. No. 2, Brevard county. Address Clerk, School Board.

Ga., Augusta.—Board of Education is reported to erect schools to replace Houghton and Tubman schools, lately damaged by fire.

Ga., Eatonton.—Trustees are having plans prepared by Chas. Edward Choate, Candler Bldg., Atlanta, for schools; brick; Barrett specification roof; plumbing; electric lighting; slate blackboards; furnace blast heat; plans ready for contractors Apr. 12 to 15; cost \$25,000. (Lately noted.)

Ga., Metters.—City voted \$6500 bonds to erect school. Address The Mayor. (Lately noted.)

Ga., Newnan.—Board of Education is having plans prepared by Haralson Bleckley, Atlanta, for school, for which bonds were lately noted voted.

Ga., Tifton.—City votes Apr. 11 on \$30,000

bonds for schools, T. F. Lockwood, Archt., Murrah Bldg., Columbus, Ga. (Lately noted.)

Ky., Clay City.—Board of Education selected Anderson & Frankel, Lexington, as architects for senior high school; cost \$5,000. (Previously noted.)

Ky., Middletown.—Jefferson County Board of Education, Louisville, will erect common and high school; 4 rooms with chapel or amphitheater; Archt. not selected; bids opened in May or June.

La., Baton Rouge.—City voted \$125,000 bonds to erect 2 white and 1 negro school and improve and enlarge other schools. Address The Mayor.

La., Pineville.—Louisiana College will erect men's dormitory; accommodate 100; ordinary construction; hot-water heat; electric lights; size, roof and other details not decided. Address C. Cottingham.

La., Slidell.—City plans to erect addition to high school. Address The Mayor.

Md., Brooklyn.—Legislature passed bill authorizing Anne Arundel county to issue \$300,000 bonds to erect addition to public school at Curtis Bay; two wings; 3 stories; brick; slate roof; Herbert G. Crisp, Archt., 270 St. Paul St., Baltimore; William S. Crisp, Chrm. Bldg. Com., Brooklyn. (Lately noted.)

Md., Frostburg.—Legislature appropriated \$26,000 to erect dormitory at State Normal School. Address Board of Regents.

Md., Hagerstown.—Legislative Committee reported favorably on bill providing \$250,000 bond issue to erect high school. Address Washington County Commrs.

Md., Linthicum Heights.—Herbert G. Crisp, 270 St. Paul St., Baltimore, prepared plans for school between Linthicum Heights and Shipley Station; 2 stories; brick; fireproof; wood floors; cost \$10,000. Address Wm. S. Crisp, Brooklyn, Md.

Md., Oakland.—Legislature passed bill authorizing erection of high school. Address School Trustees.

Miss., Drew.—Town has plans by R. B. Spencer, 205 6 New Millap Bldg., Jackson, Miss., for school; 45x50 ft.; ordinary construction; five-ply built-up tar and gravel roof; electric wiring; cost \$11,000; one-ply gravity heating system, \$1200; bids opened between May 1 and 15. Address Archt. (Lately noted.)

Mo., Joplin.—Board of Education, J. A. Becker, Prest., is having plans prepared by Smith, Rea & Lovitt, Finance Bldg., Kansas City, for proposed high school.

Mo., Joplin.—Board of Education selected Austin Allen, Joplin, as Archt. for school improvements to cost about \$50,000; include enlargement of McKinley school, improve Lafayette school, providing auditorium and playground for Longfellow school, establishing 1-room school north of Turkey Creek, installing heating equipment, acquiring additional ground for playgrounds, etc.

Mo., St. Louis.—Board of Education will erect 22-room school to replace Bates School at Spring Ave. and Market St.; cost about \$200,000.

N. C., Cary.—Wake County Commrs. have plans by J. M. Kennedy, 501 Merchants Bank Bldg., Raleigh, for dormitory; 102x38 ft.; 2 stories and basement; ordinary construction; Carey roof; wood floors; steam heat; cost \$10,000; bids opened April 8. (Lately noted.)

N. C., Cary.—County Board of Education, Raleigh, N. C., selected J. M. Kennedy, Raleigh, as architect for dormitory to replace burned structure; about 30 rooms; ordinary construction; slate roof; cost \$9000; low-pressure steam heat, \$865; construction begins May 1. (Lately noted.)

N. C., Hickory.—Hickory School Dist. voted \$25,000 bonds to erect school. Address Dist. School Trustees. (Lately noted.)

Okla., Ardmore.—Board of Education is considering \$40,000 bond issue for school.

Okla., Bessie.—City lets contract Apr. 10 to erect school; C. E. Hair & Co., Archts., 417 Terminal Bldg., Oklahoma City.

Okla., Fitzhugh.—Fitzhugh School Dist. voted \$8000 bonds to erect brick school. Address Dist. School Trustees.

Okla., Geary.—City is having plans prepared by Hawk & Parr, Oklahoma City, for \$20,000 school. (Lately noted.)

Okla., Henryetta.—City voted \$40,000 bonds to erect school. Address The Mayor.

Okla., McAlester.—Board of Education ordered election for Apr. 11 on \$75,000 bonds for schools.

Okla., Norman.—City voted \$40,000 bonds to erect school; plans by Layton & Smith, Oklahoma City, call for 2-story structure;

ordinary construction; cost \$22,000. Address Chas. Q. Stanley, Secy. (Lately noted.)

Okla., Okarche.—City is reported to have plans by Hawk & Parr, Oklahoma City, for school building.

Okla., Rosston.—City is reported to have plans by Hawk & Parr, Oklahoma City, for school building.

Okla., Rush Spring.—City has plans by C. E. Hair & Co., 417 Terminal Bldg., Oklahoma City, for \$25,000 school.

S. C., Greenville.—City is considering election on \$50,000 bonds for schools. Address City School Board. (Previously noted to erect high and graded schools.)

S. C., Taylors.—Taylors School Dist. votes Apr. 11 on \$7000 bonds to erect school. Address School Trustees. (Lately noted to vote on this issue Apr. 15.)

Tenn., Covington.—City votes April 25 on \$20,000 bonds to erect school; J. Winfield Darby, Mayor.

Tenn., Greeneville.—Greene County Commissioners will erect \$30,000 school building.

Tenn., Huntsville.—Board of Education has plans by W. H. Gildard, 506 Henson Bldg., Knoxville, for school; main building, 86x33 ft.; 3 stories; wing 24x40 ft.; frame; asphalt shingle roof; wood floors; hot-water heat; cost \$9000; date of opening bids not set; construction begins Apr. 15. Address W. L. McDonald, Huntsville.

Tenn., Knoxville.—City Commission rejected all bids to erect Moses school; will advertise for new bids; 15 rooms; stone, brick and terra-cotta; cost \$35,000 to \$40,000; R. F. Graf & Son, Architects, Knoxville. (Lately noted.)

Tex., Barstow.—City plans to erect \$15,000 high school. Address The Mayor.

Tex., Bellevue.—Bellevue School Trustees are considering election on bonds to erect school.

Tex., Cumby.—City voted \$5000 bonds to erect addition to school. Address School Trustees.

Tex., College Station.—Agricultural and Mechanical College, Dr. W. B. Bizzell has plans for stock-judging pavilion; 200x100 ft.; steel frame; brick and concrete; 2 stories; gallery to accommodate 3000; cost \$40,000; bids opened April 8. (Lately noted.)

Tex., Cleburne.—Rock Tank, Stubblefield, Antioch and Greenbrier School Dist. will consolidate and plan to issue \$7000 bonds to erect school; Freeland and Willow Branch School Dist. plan election on \$2500 bonds to erect school; Barnesville School Dist. sold \$500 bonds and will soon begin construction of building; Gordon S. Thomas, Supt., Public Instruction.

Tex., Dallas.—Estell Common School Dist. No. 62 plans to vote on \$9000 bonds to erect school. Address Dist. School Trustees.

Tex., Dallas.—Dallas County School Dist. is reported to vote Apr. 15 on \$20,000 bonds for school. Address District School Trustees.

Tex., Denton.—County School Board is considering additional bond issue to equip new high and ward schools and repair Lee School.

Tex., Denton.—Board of Regents, College of Industrial Arts, F. M. Bralley, Pres., receives bids until Apr. 10 to erect 2-story and basement dining hall and dormitory and for mechanical equipment for same; plans and specifications at office of Ernest E. McAnelly, Archt., 1407 S. Southwestern Life Bldg., Dallas.

Tex., El Paso.—Smelter School District selected plans by H. M. Beutell, El Paso, for proposed school; 8 rooms; water tank on roof; plans completed by Apr. 15; Gibson & Robertson, Consulting Archts., El Paso. (Lately noted.)

Tex., Fort Stockton.—Pecos County School Dist., Howell Johnson, County Judge, has plans by Geo. Burnett, 212 Cameron Bldg., Waco, Tex., for high school; fireproof; steam heat; electric light; cost \$50,000; bids opened about Apr. 25.

Tex., Ft. Worth.—Common School Dist. No. 8 votes Apr. 25 on \$5000 bonds to erect school. Address District School Trustees.

Tex., Georgetown.—Southwestern University, A. Dee Simpson, Campaign Secy., will erect lately-noted science building; 112x70 ft.; concrete, reinforced with steel; brick facing; reinforced concrete and gravel roof; reinforced concrete and tile floors; heating and lighting from central plant; freight hand-lift elevator (included in general contract); cost complete \$50,000; contract let Apr. 8; M. L. Waller, Archt., 412-13 Dan Vaggoner Bldg., Fort Worth. Address Mr. Simpson. (See Machinery Wanted—Building Materials; Electrical Supplies.)

Tex., Georgetown.—Southwestern University, Chas. McTyre, Pres., receives bids until Apr. 3 to erect science building; 3 stories and basement; concrete, reinforced with steel; brick facing; hollow tile outside walls; fireproof; reinforced concrete partitions, stairways, roof, etc.; vacuum steam-heating system; electric lighting; will contain laboratories, lecture-rooms, conservatory, etc.; acid-room and weighing-room equipped with concrete table for balances; laboratories with glass partitions and automatic suction system for removing fumes; gas-manufacturing machine in basement at practically constant temperature; freight elevator; special equipment for soil analysis and soil physics; wireless station on roof; plans and specifications at office M. L. Waller & Co., Archts., Fort Worth; A. D. Simpson's office, Georgetown, and E. C. Lang, 521 Binz Bldg., Houston. (Lately noted.)

Tex., Hallsburg.—City is reported to issue \$4500 building bonds; Geo. N. Denton, County Judge, Waco, Tex.

Tex., Houston.—City opens bids April 10 to erect gymnasium and natatorium at North Side high school; 50x102 ft.; reinforced concrete and structural steel on bearing walls; tar and gravel roof; vacuum heat from central plant; cost \$20,000; Maurice J. Sullivan, Archt., Houston. (Lately noted.)

Tex., Plainview.—Seth Ward Methodist College will rebuild structure lately noted damaged by fire.

Tex., Plainview.—School Trustees have plans by M. L. Waller, Ft. Worth, Tex., for high school; cost \$50,000; W. R. Simmons, Supt. of Construction. (Previously noted.)

Tex., Springtown.—Springtown Ind. School Dist. voted \$11,000 bonds to erect stone school building.

Tex., Royse City.—City voted \$20,000 bonds to improve schools; W. P. Simmons, V. B. Harris and Marvin M. McKee, Trustees. (Previously noted.)

Tex., Rio Vista.—Rio Vista School Dist. voted \$16,000 bonds for schools; L. A. Colquitt, G. W. Smith and Sam Jones, Trustees.

Tex., Terrell.—Poetry Ind. School Dist. voted bonds to erect brick school. Address Dist. School Trustees.

Tex., Tynan.—Skidmore School Dist. plans election on \$7000 bonds to erect school. Address Dist. School Trustees.

Tex., Victoria.—Guadalupe School Dist. voted bonds to erect \$10,000 brick school. Address Dist. School Trustees.

Va., East Radford.—Regents Normal School will let contract April 14 to complete dormitory.

Va., Harrisonburg.—State Normal School has plans by Chas. M. Robinson, Inc., Richmond, for dormitory; 45x136 ft.; 2 stories; ordinary construction; tile roof; low pressure Paul system heating; cost \$33,000; bids open probably between Apr. 15 and May 1.

Va., Norfolk.—Washington School Dist. will issue \$45,000 bonds to erect schools; N. H. Foreman, Supt. of Schools.

Va., Norfolk.—City is having plans prepared by John Kevan Peebles, Norfolk, for Walter Herron Taylor School; 18 rooms; rough brick exterior up to sill line of first-story windows; stucco above; 178x122 ft.; cost \$50,000. (Previously noted.)

Va., Roanoke.—City voted \$300,000 bonds to erect schools in Melrose and Belmont and negro school, also repair other structures. Address The Mayor. (Lately noted.)

STORES

Ark., Avoca.—J. D. Torbett will erect store building to replace structure lately noted damaged by fire; 20x50 ft.; ordinary construction; tar and gravel roof; construction begins July 1.

Ark., Plummerville.—J. E. Jennings, Ft. Smith, Ark., will erect store building to replace B. F. Jackson's store lately noted damaged by fire; brick or stone; other details not determined. Address owner.

D. C., Washington.—S. N. Meyers is having plans prepared by Louis Levi, Munsey Bldg., Baltimore, to remodel store building at 1331 F St.; cost \$5000 to \$10,000; other details not available.

Fla., Clearwater.—Bank of Clearwater will erect store, bank and office building. (See Bank and Office.)

Fla., Miami.—H. D. Beach, Coshocton, O., is reported to erect business block; plans in progress.

Fla., Tampa.—J. M. Harvey will erect 3-story building at Florida Ave. and Cass St.; brick construction; lower floor for stores; upper floor, hotel.

Ga., Atlanta.—John A. Carlton, Moultrie, Ga., will erect mercantile building.

Ga., Dalton.—John Puryear will erect store and lodge building; 25x50 ft.; 2 stories; brick; completion by July 1.

Ga., Douglas.—S. J. Stubbs, M. M. Ashley, Lawson Kelley and M. D. Dickerson will remodel and enlarge building and erect additional building; new structure to be 2 stories, brick; will stucco exterior of building to be remodeled.

Mo., Kansas City.—Smith, Barnes & Strober Co., Chicago, leased building at 917-19 Grand Ave. and will remodel at cost of \$10,000; completion by May 1; Thomas Real Estate Co., owner.

Mo., Joplin.—J. W. Jenkins' Sons Music Co., main office, Kansas City, Mo., acquired First National Bank Bldg. at 411 Main St. and will expend \$15,000 to improve; will remodel front; extend same in rear, 40x25 ft.; lower ground floor; install built-in display windows; tile brick floor; automatic elevator and sprinkler system; construction under supervision of E. Parker, company's superintendent of buildings.

Mo., Kansas City.—E. R. Latham, Tulsa, Okla., will erect business building.

N. C., Asheville.—J. L. Smathers will erect addition to store building; 22x100 ft.; brick; 4 stories; cost \$10,000.

N. C., Hickory.—J. O. Moore will erect store building; 2 stories; brick; tin roof; electric lights; plate-glass fronts; Q. E. Herman, Archt., Hickory.

N. C., Winston-Salem.—Gustavus Polites will erect business building; 3 stories; concrete; cost \$12,000.

Okla., Clinton.—Carroll, Brough, Robinson & Humphrey are having plans prepared by Hawk & Parr, Oklahoma City, for business building, 50x100 ft.; 2 stories; brick; cost \$15,000.

Okla., McAlester.—Griffin Grocery Co. will erect business building; 3 stories; 70x140 ft.; fireproof; brick; cement floors; cost \$15,000; J. J. Walsh, Archt., McAlester. Address owner.

Okla., Oklahoma City.—Charles Reymers-hoff, Galveston, Tex., will erect business building; 3 stories and basement; brick; site 25x140 ft.

Okla., Oklahoma City.—B. & M. Clothing Co. has plans by Bailey & Bailey, Oklahoma City, for business building.

Okla., Oklahoma City.—Sidney L. Brock has plans by Bailey & Bailey, Oklahoma City, for business building. (Lately noted.)

Okla., Oklahoma City.—Hawk & Parr, Oklahoma City, are preparing plans for several business buildings.

Okla., Tulsa.—H. A. Brockman will erect brick business building; 3 stories; cost \$12,000.

Okla., Tulsa.—W. Smith acquired building at 317 S. Cincinnati Ave.; will erect additional story; lower floor for mercantile purposes; upper floors, hotel.

Okla., Tulsa.—Britton-Halsale Wholesale Grocery Co. will erect building; 1 story and basement; brick; 78x120 ft.; cost \$15,000.

Okla., Wilson.—H. A. Watson will erect brick business building.

Okla., Wilson.—Buchele & Son will erect brick business building.

Okla., Wilson.—Means & Lee will erect brick business building.

S. C., Great Falls.—Great Falls Farming Co. will erect store and office building, etc. (See Dwellings.)

S. C., Greenville.—Sullivan Hardware Co. has plans by F. H. and J. G. Cunningham, Greenville, for 2-story store and 3-story warehouse; mill construction; tar, gravel and tin roof; wood and reinforced concrete flooring; steam heat; sprinkler system; overhead traction freight elevator. Address owner.

S. C., Lexington.—Scott Hendrix will erect 2 buildings to replace structures lately noted damaged by fire; fireproof.

S. C., Lexington.—T. P. Meetze will erect store building to replace burned structure.

S. C., Lexington.—Dr. E. P. Derrick will erect store building to replace burned structure.

S. C., Lexington.—Lexington Trading Co. will erect 3 stores to replace burned structures.

S. C., Lexington.—Samuel B. George will erect 3 store buildings to replace burned structures; 24x90 ft.; 22x90 ft. and 30x100 ft.; brick; metal or Johns-Manville roof; concrete floors; electric lights; cement sidewalks; construction begins May 1; cost \$5000, \$3000 and \$2000, respectively.

Tenn., Carthage.—Read Bros. will erect 2-story brick store; Barrett roofing; low-pressure steam heat; acetylene-gas lighting; wooden joist floor construction; metal windows; vaults; C. K. Colley, Archt., Nashville. Address owners. (See Machinery Wanted—Metal Windows, Vault Doors.)

Tenn., Chattanooga.—Smith Bros. are erecting brick store near McNeil and Camden Sts., Avondale; also preparing to erect brick dwelling.

Tenn., Chattanooga.—M. A. Fleming will erect store and apartment building; 2 stories; 110x220 ft.; semi-fireproof; cost \$170,000; Barnwell & Barnwell, Archts., Chattanooga.

Tenn., Chattanooga.—Southern Auto Supply Co. is having plans prepared by W. H. Sears, Chattanooga, for building at 615 Broad St.; 3 stories and basement; reinforced concrete; electric elevator; terrazzo floors; cost \$20,000.

Tenn., Knoxville.—Morris Bart, 213 N. Gay St., will erect business building at 211-13 Gay St., 50x125 ft.; completion by Aug. 1.

Tenn., Lewisburg.—A. G. Jean has plans by C. K. Colley, Nashville, for store building; 32x58 ft.; 2 stories; ordinary brick construction; Carey built-up roofing; joist floor construction; low-pressure steam heat; hand-power elevator; cost \$6000; day labor; construction begun. Address owner. (Previously noted.)

Tenn., Nashville.—Allen J. Krebs will remodel interior of 3-story brick building at 180 3d Ave.; cost \$3000.

Tex., Beaumont.—Phelen-Josey Nursery Co. has plans by Cooke & Co. for lately noted store building; 112x125 ft.; 3 stories and basement; reinforced concrete; fireproof; gravel roof; concrete floors; steam heat; freight elevator, 5x5 ft., with capacity of 2 tons; cost \$80,000; contract let April 7; construction begins April 15. Address Archts. (See Machinery Wanted—Sprinkler System.)

Tex., Dilley.—Guy Wood will erect business building.

Tex., Houston.—Ben Susholts will erect reinforced concrete store; cost \$3000.

Tex., Port Arthur.—W. E. Hall will erect business building; 2 stories; cost \$7500; F. W. Steinmann, Archt., Beaumont.

Tex., Port Arthur.—S. E. Newton will erect business building; 2 stories; brick; tile floor; cost \$6000; occupied by Beaumont Cigar Co.; F. W. Steinmann, Archt., Beaumont.

Tex., Port Arthur.—H. J. Pelta has plans by F. W. Steinmann, Beaumont, Tex., for business building; 25x140 ft.

Tex., Ralls.—John R. Ralls will erect 50x100 ft. brick business building.

Tex., Ralls.—G. R. Moore & Sons will erect brick business building; 50x100 ft.

Tex., San Antonio.—Henry L. Half and others will erect business block; 2 stories; probably 6 stores with apartments above; site 117x100 ft.; cost \$40,000.

Tex., San Marcos.—A. C. Feltner has plans by Roy L. Thomas, Scarbrough Bldg., Austin, for business building; 2 stories; 36x72 ft.; pressed brick; stone trimmings; steel lintels; iron balcony; galvanized-iron roofing; concrete flooring; metal ceiling; reinforced concrete foundation; gas and electric fixtures; cost \$7000.

Tex., Sylvester.—J. K. Kiser & Son will erect brick business building.

W. Va., Wellsburg.—Meyer & Easterday let contract Apr. 8 to erect store building; 35x100; composition Barrett specification roof; steam heat; electric elevator; cost \$10,000; M. L. Wells, Archt., Wellsburg. (Lately noted to open bids Mch. 15.)

THEATERS

La., New Orleans.—Herman Pichtenberg will erect moving-picture theater; interior finish in polished Caen stone; exterior, terra-cotta; fireproof; seating capacity 800; \$10,000 pipe organ; \$2500 electric sign; total cost \$100,000; Favrot & Livaudais, Archts., New Orleans.

N. C., Spray.—O. L. Robertson will erect moving-picture theater; 22x78.10 ft.; brick; metal roof; wood on concrete floors; coal heaters; electric lights; cost \$3000; James W. Hopper, Archt., Leaksville, N. C. (O. L. Robertson's store building lately noted damaged by fire.)

Tenn., Clarksville.—Marr & Holman, Nashville, will have plans ready about April 14 for brick moving-picture theater.

Tenn., Chattanooga.—T. S. Wilcox has plans by Barnwell & Barnwell, Chattanooga, for theater; 3 stories; 60x135 ft.; semi-fireproof; cost \$65,000.

WAREHOUSES

Ark., Little Rock.—Southwestern Supply Co. will erect addition to warehouse in rear 119-21 N. Louisiana St., and contemplates erecting warehouse on E. 4th St.

D. C., Washington.—J. E. Chapman has plans by N. T. Haller, Corcoran Bldg., Washington, for 1-story brick warehouse in rear 59 N St. N. W.; cost \$10,000; construction by owner.

Ky., Hopkinsville.—Weyman-Bruton Tobacco Co. is reported to erect warehouse.

La., Abbeville.—People's Independent Warehouse Co. organized with \$15,000 capital stock; R. J. Montange, Pres.; J. Immergluck, V.-P.; E. M. Stebbins, Treas.; Henry B. Sere, Secy.-Mgr.; will erect rice warehouse; capacity 50,000 sacks.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

D. C., Washington.—Central High Mercantile Co. let contract to erect store and apartment building. (See Stores.)

Md., Baltimore.—I. W. Katz let contract to erect store and apartment building. (See Stores.)

Tex., Ft. Worth.—J. R. McNeely let contract to L. B. Ramsey, Ft. Worth, to repair apartment-house; cost \$300.

Va., Norfolk.—Mark Davies has plans by William Newton Diehl, Norfolk, for apartment-house; 3 stories; 18 suites; brick and stucco; front porches; stone trimmings; plans ready in about 10 days; cost \$30,000 to \$35,000; contract for piling let to S. G. Williams, Norfolk; completion between Sept. 15 and Oct. 1.

Va., Richmond.—F. H. Nott let contract to R. M. Anderson & Co., Richmond, to erect 2-story double brick tenement-house; cost \$750.

Va., Richmond.—T. K. Vertner let contract to Davis Bros., Inc., Richmond, to erect 2-story double brick flat; cost \$350.

Va., Richmond.—W. C. Newman, Farmville, Va., let contract to Davis & Archer, 2515 Hanover Ave., Richmond, to erect apartment-house at Davis and Stuart Aves.; 78x44 ft.; brick; tin roof; cost \$13,000; C. H. Archer, Archt., 2517 Hanover Ave., Richmond.

ASSOCIATION AND FRATERNAL

Md., Brooklyn.—Arundel Lodge, No. 145, I. O. O. F., let contract to Seward Coulbourne, Brooklyn, to erect hall; brick; tin roof; store front; cost about \$500.

BANK AND OFFICE

Ala., Gadsden.—First National Bank let contract to Geo. W. Muller Bank Fixture Co., Atlanta, for interior improvements to bank building; bronze and golden vein marble; will install walls, ceilings, etc.; cost \$10,000; J. Perry Greene, designer.

Ga., Atlanta.—Dr. W. S. Elkin let contract to erect office and store building. (See Stores.)

Ga., Augusta.—Grogan & O'Dowd let contract to L. H. Taylor to erect \$500 office building at Reynolds and 9th Sts.

Ga., Augusta.—C. Cochran & Co. let contract to erect two office buildings; brick; tin roof; wood floors; stoves; electric lights. (Lately noted.)

Okla., Calumet.—W. R. Miller let contract to erect store and office building. (See Stores.)

Tex., Cleveland.—State Bank of Cleveland let contract to erect bank building; 2 stories; brick; cost \$16,700.

Tex., Melvin.—First State Bank let contract to John F. Drew, Lometa, Tex., to erect bank building; brick; cost \$2800; contractor will purchase materials.

Va., Boykins.—Meherrin Valley Bank has plans by and let contract to R. L. Turner, Suffolk, Va., to erect bank building; near fireproof; metal roof; stoves; electric lights; granite/sidewalks; cost \$2500. Address J. L. Barham, Newsoms, Va., or R. H. Powell, Boykins, Va. (This work lately noted let to another contractor.)

W. Va., Wheeling.—American Sheet & Tin Plate Co. let contract to Cuthbert Bros., Pittsburgh, Pa., to erect office building; cost \$7500.

CHURCHES

D. C., Washington.—Petworth M. E. Church let contract to C. E. Wire, 901 Webster St. N. W., to remodel church at New Hampshire Ave. and Grand Circle; cost

Mo., St. Louis.—Seventh Street Realty & Power Co. has not let contract to Smith & Sons, St. Louis, to erect warehouse as lately incorrectly noted.

N. C., Winston-Salem.—R. J. Reynolds Tobacco Co. is having plans prepared for warehouse; several stories; reinforced concrete.

S. C., Greenville.—Sullivan Hardware Co. has plans for store and warehouse. (See Stores.)

S. C., Greenwood.—Jas. B. Wilson, Gastonia, N. C., is reported considering Greenwood and Hodges, S. C., as location for warehouse; 250 ft. long; cost \$6000 to \$8000.

S. C., Hodges.—Jas. B. Wilson, Gastonia, N. C., is reported to erect warehouse. (See S. C., Greenwood.)

Va., Suffolk.—John Kevan Peebles, Norfolk, prepared plans for warehouse.

\$3000; M. F. Moore, Archt., 730 Colorado Bldg.

Ky., Burkesville.—Christian Church let contract to R. W. Collins, Burkesville, to erect building; pressed brick and stone; cost \$700.

Tenn., Memphis.—Church of which Rev. S. E. Griggs is pastor let contract to Max Halperin, 810 McLemore Ave., Memphis, to erect building; 80x140 ft.; brick; concrete foundation; stone trimmings; tile or reinforced concrete partitions; cost \$50,000; W. T. Bailey, Archt., 358 Beale Ave., Memphis. (Previously noted.)

CITY AND COUNTY

Miss., Meridian.—Stable.—City let contract to erect stable and wagon sheds; cost \$400. Address The Mayor. (Lately noted.)

N. C., Dobson.—Jail.—Surry county let contract to erect courthouse and jail. (See Courthouses.)

COURTHOUSES

N. C., Dobson.—Surry county let contract at \$85,000 to Longest & Tessier Co., Greensboro, N. C., to erect courthouse and jail; \$3800 to Stuart Iron Works, Cincinnati, for furnishings; \$4400 to B. MacKenzie, Greensboro, for heating; John L. Banner, Mt. Airy, N. C., for about 600,000 bricks; plans by Harry Barton and Raleigh James Hughes, both of Greensboro, N. C., call for fireproof structure; Barrett specification roof; granite trimmings. (Lately noted.)

Okla., Miami.—Ottawa county let contract to J. J. Rooney, Muskogee, Okla., to erect courthouse; 80x90 ft.; fireproof; 4 stories; concrete foundation, floors and partitions; brick and stone exterior finish; cost \$75,000; C. E. Hair & Co., Archts., 417 Terminal Bldg., Oklahoma City. (Contract lately noted awarded another firm.)

DWELLINGS

Ala., Birmingham.—Dr. D. B. Libby, 378 Brown Marx Bldg., has plans by and let contract to R. H. Byrd & Co., 606-7 Chamber of Commerce, Birmingham, to erect residence; 8 rooms; hollow tile; fireproof; oak floors; steam heat (contract let); conduit lighting (W. H. Turbeville, Cont.); cost \$6000; John D. Gulett, engineer on reinforcing, 606-7 Chamber of Commerce. (Lately noted.)

Ala., Fort Payne.—Mrs. N. H. Snodgrass let contract to H. M. Weaver to erect colonial residence; Walt M. DeKalb, Archt., Chattanooga.

Ala., Piedmont.—Coosa Mfg. Co. let contract to erect six 4-room bungalows; 32x32 ft.; frame; cedar shingle roof; wood floors; open fireplaces; city electric lights; cement sidewalks; cost \$4200; plans by owner. (Lately noted.)

Ark., Batesville.—W. F. Perrin let contract to Glenn, Fugett & Martin, Batesville, to erect residence; 40x40 ft.; two stories; brick veneer; tile roof; hardwood floors; cost \$3000; hot-water heat \$1000; Theo. M. Sanders, Archt., Little Rock. (Lately noted.)

Ark., West Memphis.—W. L. Johnson, Memphis, Tenn., let contract to erect 20 dwellings, etc. (See Hotels.)

D. C., Washington.—Frank Blaine let contract to Johnson & Moxley to erect three 2-story brick dwellings and garage; cost \$6000; A. Landvoight, Archt., 714 13th St. N. W.

D. C., Washington.—Joseph P. Stubener, 653 F St. N. E., let contract to R. H. Sanford, 711 Quincy St. N. W., Washington, to erect residence at 5105 14th St. N. W.; 25x38 ft.; hollow-tile construction; slate roof; wood flooring; hot-water heat; C. E. Webb, Archt., 237 Rhode Island Ave. N. W., Washington. Address Contr. (Lately noted.)

Fla., Kissimmee.—J. J. Tucker let contract to W. H. Arnold, Kissimmee, to erect residence; cost \$4000 to \$5000.

Fla., Miami.—Ralph Worthington let contract to W. F. Yarborough, Miami, to erect residence; reinforced concrete; wooden floors and partitions; four-ply built-up asbestos and tile roofing; hot-air furnace and grates; electric lights; August Geiger, Archt., Miami. (Previously noted.)

Fla., Orlando.—M. O. Overstreet let contract to L. C. Townsend, Orlando, to erect residence; brick; colonial style.

Ga., Augusta.—Mrs. L. G. Doughty let contract to C. B. Holley, Augusta, to erect residence; cost \$11,000.

Ga., Manchester.—Manchester Cotton Mills let contract to J. P. Corley Lumber Co., Manchester, Ga., to erect 20 dwellings; 3 and 4 rooms each.

La., De Ridder.—D. D. Blue let contract to J. Y. Dempsey, De Ridder, to erect residence (lately noted to be erected by A. J. Armstrong); ordinary construction; Rex tile roof; probably vacuum heating; cost \$6000; electric lights, \$250; A. J. Armstrong, Archt., Shreveport, La. (See Machinery Wanted—Heating System.)

Md., Baltimore.—Geo. Benhoff let contract to P. P. Day, 163 Montebello Ter., Baltimore, to erect residence on Overland Ave. near Harford Rd.; 26x28 ft.; 2½ stories; frame; cost \$5000.

Md., Govans.—W. P. Williamson, Charter Oaks Ave., near Crown Ave., let contract to Jos. German, 1001 Arlington Ave. N., Baltimore, to erect residence; 2½ stories.

Miss., Indianola.—Chas. B. Klingman let contract to erect lately-noted residence; 39½ x61 ft.; 2 stories; frame; asphalt shingle roof; no heating plant; cost \$5000; lighting and fixtures about \$150; Regan & Weller, Archts., 334-5 Bank of Commerce and Trust Bldg., Memphis, Tenn. Address owner. (See Machinery Wanted—Stone Work.)

Mo., St. Louis.—A. E. Woerheide let contract to R. L. Woerheide, St. Louis, to erect 3-story dwelling; cost \$5500.

N. C., Asheville.—R. P. Walker let contract to D. B. Sinkov, Asheville, to erect residence; 8 rooms and sleeping porch; wood floors; metal roof; frame; electric lights; concrete sidewalks; cost \$3000; completion by June 1; W. O. Newton, Archt., Asheville. (Lately noted.)

N. C., Statesville.—Fred T. Slane let contract to Hunter & Gordon, Charlotte, N. C., to erect residence.

Okla., McAlester.—G. W. Barr let contract to erect 2-story 8-room residence and two 6-room bungalows; cost \$10,000.

S. C., Charleston.—H. C. Cheves, Jr., has plans by and let contract to McCrady Bros. & Cheves, Inc., 41 Broad St., Charleston, to erect two dwellings; frame. (Lately noted.)

S. C., Walterboro.—Dr. Sam Riddell has plans by and let contract to B. C. L. Hiers, Walterboro, to erect residence; wood; tin roof; wood floors; electric lights; cost \$4480. Address Contr.

Tenn., Chattanooga.—C. E. James let contract to erect 2 bungalows on Signal Mountain.

Tenn., Memphis.—Mrs. Johnston let contract to M. M. Johnston, Memphis, to erect 2-story 8-room frame and stucco residence; cost \$4000; heating, \$400.

Tenn., Memphis.—J. C. Lutz let contract to Edward Miles, Memphis, to erect bungalow; 51½x50 ft.; brick veneer and stucco exterior; green asphalt-shingle roof; cost \$1800; hot-water heat (contract let) \$325; wiring and electric fixtures \$110; Regan & Weller, Archts., 334-5 Bank of Commerce & Trust Bldg., Memphis. Address Contractor. (Lately noted.)

Tenn., Memphis.—Hugh Humphreys let contract to W. T. Hudson, Memphis, to erect residence; 100x60 ft.; brick and stucco veneer; composition shingle roof; cost \$20,000; hot-water heat, \$1500; electric lights, \$1100; all contracts let but screening for doors and windows.

Tex., Edna.—O. H. Radkey let contract to J. H. Kitchens, Austin, to erect residence; 2 stories; 11 rooms; frame; pine flooring; gas and electric fixtures; cost \$5000; Roy L. Thomas, Archt., Scarbrough Bldg., Austin.

Tex., Llano.—Geo. M. Watkins let contract to W. A. Darby, Austin, to erect residence; 8 rooms; stone trimmings; pine flooring; electric fixtures; concrete foundation; cost \$6000; contractor will do buying; Roy L. Thomas, Archt., Scarbrough Bldg., Austin.

Tex., Stephenville.—James F. Cox, Prest. John Tarleton College, let contract to C. S. Oates, Dublin, Tex., to erect residence.

Tex., Wichita Falls.—A. B. Maples let contract to Taylor Bros., Wichita Falls, to erect residence; 30x36 ft.; frame; shingle roof; pine flooring; electric lights; cost \$3000; grates and stoves; concrete sidewalk. (Lately noted.)

Va., Richmond.—O. D. Brinsler let contract to B. T. Barker & Co., Richmond, to erect residence; 45x60 ft.; brick; tin roof; electric lights; brick and concrete sidewalks; cost \$7000. (Lately noted.)

Va., Richmond.—John B. Swartwout let contract to P. J. Beattie, Richmond, to erect residence; 33x30 ft.; stucco; tile roofing; pine flooring; cost \$4500; hot-water heat \$325; W. D. Lee, Archt., Richmond. (Lately noted.)

West Virginia.—Wyoming Coal Co. let contract to Early Bros., Mullens, W. Va., to erect 24 miners' dwellings.

GOVERNMENT AND STATE

W. Va., Martinsburg.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., let following contracts in connection with improvements to postoffice building: General contract, J. L. Robinson Construction Co., 66 Knickerbocker Bldg., Baltimore, at \$939; sewerage system, Noland-Clifford Co., Inc., Newport News, Va.; electric passenger elevator, Washington office of Otis Elevator Co., New York. (Lately noted.)

HOSPITALS, SANITARiums, ETC.

S. C., Columbia.—State Board of Health let contract at \$4500 to Taylor-Waters Construction Co., Columbia, to construct ward for women at State Tuberculosis Camp near State Park; 1-story; 36x113 ft.; frame; shingle roof; wood floors; acetylene lighting (extension present system); stoves; cost \$4500; Wilson & Sompayrac, Archts., Columbia. (Lately noted.)

HOTELS

Ark., West Memphis.—W. L. Johnson, Memphis, Tenn., let contract to R. E. Montgomery Lumber Co., Memphis, to erect 50-room hotel and 20 four-room tenement-houses; wood construction; shingle roof; wood floors; cost \$20,000; construction begun. (Lately noted.)

Ky., Ashland.—Ventura Hotel Co. let contract to Pelprey & Davis, Ashland, to erect addition to hotel; 60 rooms; cost \$20,000; Gustave W. Drach, Archt., 1701 Union Trust Bldg., Cincinnati.

N. C., Asheville.—Mrs. Fannie Patton let contract to Cressman & O'Neil, Asheville, to erect addition and convert residence into hotel at cost of \$8000.

Tex., Bryant.—Tyler Haswell let contract to T. B. Hubbard, Bryant, to erect annex to Hotel Bryant, 28x30 ft.; 2 stories; brick; fireproof; cost \$14,000; completion in 90 days.

Tex., El Paso.—Howard Rankin, O'Fallon Realty Co. let contract to erect store and hotel building. (See Stores.)

Tex., Seguin.—City Hotel Assn. let contract to erect hotel; 4 stories; 36x30 ft.; basement 36x73 ft.; cost \$45,000.

Va., Quantico.—Quantico Hotel Co. let contract to Dawson & Downs, 415 Munsey Bldg., Washington, D. C., to erect hotel; 3 stories; 56x50 ft.; cost \$20,000 to \$40,000. (Previously noted.)

RAILWAY STATIONS, SHEDS, ETC.

Tex., San Antonio.—San Antonio Belt & Terminal Rwy. Co., Chas. E. Schaaf, Prest., St. Louis, holding company for Missouri, Kansas & Texas R. R., L. F. Lonbladh, Ch. Engr., Dallas, let contract on percentage basis to Thomas & Jones, St. Louis, to erect passenger and freight terminal; cost about \$1,000,000, exclusive of land; plans for construction not completed; reported to issue \$1,750,000 notes. (Lately noted.)

SCHOOLS

Ala., Huntsville.—Board of Education let contract to Baxter Bros., Huntsville, to erect high school; 2 stories and basement; cost \$28,069; brick walls; concrete foundation; 4-ply built-up Carey roofing; wood floors; heating and lighting in charge W. T. Hutchins, Huntsville. (Previously noted.)

Ark., Morrilton.—Morrilton School Dist. let contract to J. E. Hollingsworth & Co., Memphis, Tenn., to erect school; 65x125 ft.; ordinary brick construction; composition roof; wood floors; steam heat; electric lights; heating and plumbing to be let later; Joseph H. Billas, Archt., Hope, Ark. (Previously noted.)

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Fla., De Funiak Springs.—City let contract at \$27,000 to H. H. Brown, Dothan, Ala., to erect school; pressed brick face; Johns-Manville asbestos ready roofing; ordinary construction; wood floors; 12x50 ft.; auditorium 33x60 ft.; cost \$21,000; heating, plumbing and wiring \$6000; S. J. Welch, Archt., Pensacola, Fla.; construction begins Apr. 15; also let contract to W. F. Martin, Dothan, for plumbing, electric wiring and steam heating; brick, lime and cement purchased.

Fla., Jacksonville.—Board of Public Instruction let contract at \$21,500.50 to J. L. Mott Iron Works, 118 5th Ave., New York, to supply hardware and plumbing materials for new school buildings to be erected; Wm. B. Hiner, Consult. Archt., St. Louis.

Miss., Liberty.—Amity county let contracts as follows to erect brick dormitory and administration building for Agricultural High School: General contract at \$19,300, H. H. Davis, Vicksburg, Miss.; plumbing, \$51, R. A. Helderreich, McComb, Miss.; heating, \$265, Fisher Heating Co., Memphis, Tenn.; plans by Xavier A. Kramer, Magnolia, Miss. (Previously noted.)

Miss., Yazoo City.—W. S. Dolton Lumber Co., Yazoo City, has contract to furnish building material for high school for which Burkes Construction Co., Hattiesburg, Miss., has general contract at \$30,190; plans by R. H. Hunt & Bro., Chattanooga, Tenn., call for structure to accommodate 300 pupils; brick; composition roof; wood and concrete floors; steam heat; electric lights; vacuum-cleaning system; swimming pool, etc. (Latey noted.)

Mo., Fulton.—Board of Education let contract to Ernest Braun, Jefferson City, Mo., to erect high school; 66x96 ft.; 2 stories; cost \$50,000. (Previously noted.)

Mo., Neosho.—Board of Education, Neosho School Dist., let contract to J. B. Wagon, Neosho, to erect school; cost \$40,000; N. C. Davis, Archt., Neosho. (Latey noted.)

Mo., St. Charles.—Lindenwood College let contract to Westlake Construction Co., St. Louis, to erect Nicolls Hall; 140x50 ft.; wings 81 ft. 5 in.; 3 stories and basement; 25 single and 54 double rooms on 3 dormitory floors; cost \$85,000; LeBaume & Klein, Archts., Chemical Bldg., St. Louis. (Previously noted.)

Okla., Drumright.—City let contract to J. E. Rankin, Drumright, to erect high school; cost \$50,000; C. E. Hair & Co., Archts., 417 Terminal Bldg., Oklahoma City. (Latey noted.)

Tex., Corsicana.—City let contract at \$14,464 to J. E. Metcalf, Corsicana, to erect Stephen F. Austin School; 80x65 ft.; ordinary construction; composition built-up roofing; to J. H. Wooley for steam heating and plumbing, \$2750, and to Davidson Electric Co. for lighting, both of Corsicana; H. O. Blanding, Corsicana, and Wiley Clarkson, Fort Worth, Archts. (Latey noted.)

Tex., Hereford.—School Board acquired Christian College building and let contract to remodel for high school; sold \$13,000 bonds.

Tex., Paris.—School Board let contract to T. T. Reddick, Ft. Smith, Ark., to erect school; cost \$20,000; construction begins about Apr. 15; J. I. Geiger, Archt., Paris, also let contract to erect Third Ward school; cost \$35,000; construction begins May 15; completion Sept. 15. (Latey noted to vote Apr. 4 on \$40,000 school bonds.)

W. Va., Industrial.—State Board of Control is reported to have let contract at \$41,000 to Longest & Tessier Co., Greensboro, N. C., to erect school at West Virginia Industrial Home for Girls; 140x38 ft.; fireproof; composition roof; H. Rus Warner, Archt., Charleston, W. Va. (Latey noted.)

STORES

Ala., Andalusia.—National Lumber Co. let contract to J. A. Conway, Andalusia, to improve and enlarge business buildings; brick; erect additional story, etc.

Ark., Little Rock.—Miller Estate is reported to have let contract to John Schmelzer to erect building for Benj. D. Schand Machinery Co.; steel and brick; 2 stories; plateglass front; completion by May 15; Chas. L. Thompson, Archt., Little Rock.

D. C., Washington.—Central High Mercantile Co. let contract to H. B. Davis, 513 14th St. N. W., Washington, to erect 2-story brick store and apartment building; cost \$500; A. B. Mullett & Co., Archts., 721 Union Trust Bldg., Washington.

D. C., Washington.—Lansburgh & Bro. let contract to James L. Parsons, 506-7 Munsey Bldg., Washington, to improve store building at 430-30 7th St. N. W.; provide about 75,000 sq. ft. floor space; 6 stories and basement; 140x110 ft.; fireproof; steel construction; tile

and concrete floors; terra-cotta front; steam heat; belt conveyor system; electric dumb-waiters; central vacuum-cleaning system; water-sprinkler system; 7 electric elevators; cash-carrier system; cost \$350,000; plans by Milburn, Helster & Co., 710 14th St., Washington; contract for steel let to Barber & Ross, 614-22 11th St. N. W., Washington. (Latey noted.)

Fla., Dunedin.—W. H. Armstrong let contract to John C. Petersen, Clearwater, Fla., to erect buff pressed-brick building to contain 2 stores.

Ga., Atlanta.—Dr. W. S. Elkin let contract to H. D. Watts Co., Garrett Bldg., Baltimore, Md., to erect store and office building for Southern Express Co.; 100x65 ft.; 4 stories and basement; brick, steel and mill construction; limestone facing; slag roof; wood floors; 2 electric passenger elevators; steam heat; electric lights; cost \$80,000 to \$100,000; Morgan & Dillon, Archts., Grant Bldg., Atlanta; following sub-contracts let: Limestone, Capital Stone Co., electrical work, T. H. McKinney; ornamental and miscellaneous iron work, Southern Iron & Equipment Co.; plumbing, Loftus Plumbing Co.; heating, Englehart Co.; painting and white-washing, Fred Didschumet & Son; marble, tile and cement work, Geo. F. Eubanks; metal windows, sheet metal and roofing, Downman-Dozier Mfg. Co., all of Atlanta; elevators, Otis Elevator Co., New York; structural steel, Virginia Bridge Co., Roanoke, Va.; glass, Pittsburgh Plate Glass Co., Pittsburgh, Pa. (Previously noted.)

Ga., Augusta.—L. Sylvester & Sons let contract to Woodward & Mobeley, Augusta, to remodel store building; cost \$10,000; G. Lloyd Preacher, Archt., Augusta. (Latey noted.)

Md., Baltimore.—I. W. Katz let contract to Consolidated Engr. Co., Calvert Bldg., Baltimore, to erect store and apartment building; 3 stories; 25x75 ft.; brick; ordinary construction; slag roof; hot-water heat; electric and gas lighting; wood floors; cost \$11,000; Blanke & Zink, Archts., 717 Equitable Bldg., Baltimore.

Md., Brooklyn.—Arundel Lodge, No. 115, I. O. O. F., let contract to erect store and hall. (See Assn. and Frat.)

N. C., Hickory.—Chas. H. Geltner let contract to L. S. Abbe, Hickory, to erect store building; 50x80 ft.; brick; tin roof; wood floors; cost \$3000; steam heat \$800; electric lights \$200; sidewalks \$300; hand elevator \$125; Q. E. Herman, Archt., Hickory.

Okla., Calumet.—W. R. Miller let contract to C. C. Thompson, Calumet, to erect store and office building; 25x60 ft.; 2 stories; brick; Barrett, pitch and gravel roof; wood floors; stoves; cost \$3500; gasoline lighting. (Latey noted.)

Okla., McAlester.—B. A. Enloe, Jr., let contract to erect 3 brick stores on South Main St.; 50x75 ft.; also remodel front of store building on Chockaw Ave.

Okla., Oklahoma City.—Williamson-Halsell-Frazier Grocery Co. let contract to Holmboe Co., Oklahoma City, to erect building; 5 stories and basement; concrete and brick; fireproof; 50x100 ft.; cost \$55,000; Layton & Smith, Archts., Oklahoma City. (Latey noted.)

S. C., Lexington.—E. G. Breber let contract to John W. Frye, Lexington, to erect store building to replace structure lately noted damaged by fire; 60x110 ft.; brick; metal roof; mill construction; cost \$10,000.

S. C., Sumter.—Harbin Construction Co., Lexington, N. C., general contractor to erect two store buildings for Neill O'Donnell, let following sub-contracts: Roofing, A. Y. Bond, Greensboro, N. C.; Cement, Carolina Portland Cement Co., Charleston, S. C.; sky-lights, Decatur Cornice and Roofing Co., New Decatur, Ala.; terra-cotta, South Amboy Terra-Cotta Co., New York; glass for fireproof windows, High Point, N. C., office of Pittsburgh (Pa.) Plate Glass Co.; fire doors, The Pruden Co., Baltimore, Md.; partition tile, Killian Fire Brick Co., Killian, S. C.; steel and fireproof windows, Atlanta office Trussed Concrete Steel Co., Youngstown, O.; plans by N. Gaillard Walker and Johnson & Deall, Rock Hill, S. C., call for structure 32x140 ft.; fireproof construction; tar and gravel; reinforced concrete floor; cost \$25,175.

Tenn., Nashville.—Keith, Simmons & Co. let contract to W. F. Holt, Nashville, to remodel building at 414 Union St.

Tex., El Paso.—Howard, Rankin, O'Fallon Realty Co. let contract to V. E. Ware, El Paso, to erect store and hotel building; 12x 120 ft.; ordinary construction; composition roof; wood floors; cost \$47,000; steam heat, \$2500; electric lights, \$1000; Trost & Trost, Archts., El Paso. (Latey noted.)

Tex., Spur.—M. C. Rouse let contract to erect store, etc. (See Theaters.)

Tex., Waco.—W. J. Neale let contract to B. F. Baker, Waco, to erect business building; 2 stories; 50x100 ft.; cost \$20,000; Ross & Casen, Archts., Waco.

W. Va., Wheeling.—Davis Burkham & Ty-lot Co. let contract to H. W. Fair, Wheeling, to alter building; cost \$3000.

THEATERS

Tex., Spur.—M. C. Rouse let contract to C. S. Ontes, Dublin, Tex., to erect moving-picture theater, store and garage.

WAREHOUSES

Ga., Augusta.—Southern Cotton Oil Co. let contract to Carson Construction Co., Savannah, to erect seedhouse; double arch construction; 40 ft. high; storage capacity 5530 tons; construction begins after April 10; cost \$24,000; Wm. Torrance and Geo. O. Kaskell, Archts. of Carson Construction Co.

Ga., Savannah.—Savannah Warehouse & Compress Co., G. A. Gordon, Prest.; J. E. Sirrine, Archt-Engr., Greenville, S. C.; let contract Chandler & Campbell, Chattanooga, Tenn., to construct cotton warehouse; 10 rows of 10 buildings each; 575x59 ft.; 3 sheds, 375x285 ft.; concrete compress shed receiving and delivery platform and warehouse floorings; warehouses proper of 100,000 bales capacity uncompressed cotton and 200,000 to 300,000 bales compressed cotton; storage capacity of sheds, 30,000 bales. (See Cotton Compresses and Gins.)

Md., Baltimore.—American Radiator Co., Chicago, let contract to J. Henry Smith, 1426 Light St., Baltimore, to erect warehouse at Carey and Wilcomico Sts.; cost \$25,000.

Md., Woodberry.—William E. Hooper & Sons Co. let contract to Consolidated Engr. Co., Calvert Bldg., Baltimore, to erect warehouse; mill construction; brick and concrete.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

"WANTS"

Architects' Supplies.—P. J. Berckmans Co., 207 Terminal Bldg., Augusta, Ga.—Catalogues and samples of materials interesting to landscape architects and architects. (Office and equipment partially destroyed in recent fire.)

Automobiles.—See Cash Registers, Typewriting and Adding Machines, etc.—R. del Castillo.

Bank Fixtures.—Julian S. Starr, Rock Hill, S. C.—Prices on bank fixtures for building at Lancaster, S. C.

Bank Fixtures.—H. C. Tucker, West Jefferson, N. C.—Prices on bank fixtures for \$10,000 building.

Bank Fixtures.—W. S. Johnson of Bank of Craigsville, Craigsville, Va.—Prices on safe, vault and other bank fixtures.

Boiler.—John G. Duncan Co., 338 W. Jackson Ave., Knoxville, Tenn.—Jobbers' prices on 30 to 35 H. P. vertical boiler, with fixtures complete; 150 lbs. cold-water pressure; second-hand.

Boilers.—Holmes & Son (bakery), 107 F St. N. W., Washington, D. C.—Prices on boilers.

Bottles (Soda Water) and Caps.—E. B. Busbee, Marshallville, Ga.—Prices on soda water bottles per 100; also on caps per 100, postpaid.

Box Board and Machinery.—Universal Box Co., P. J. McDevitt, Prest., Pinellas Park, Fla.—Prices on box boards and box-makers' accessories; also data and prices on machinery for corrugated straw board box and case production.

Brass or Bronze Tablets.—R. V. Davis, Chrmn. North Carolina College of Agriculture and Mechanic Arts, West Raleigh, N. C.—Addresses of manufacturers of tablets and name plates in brass or bronze.

Bridge Construction.—See Road Construction.—Road Board, Precinct No. 8, Robertson county, Franklin, Tex.

Bridge Construction.—Third Ward Road Commission, D. L. McPherson, Chrmn., Abbeville, La.—Bids until April 12 to construct 350 cu. yds. reinforced concrete bridges and culverts; blanks for bids, plans and specifications obtainable from W. B. Knox, Engr., Abbeville.

Bridge Construction.—Clinton County Fiscal Court, J. G. Sloan, Clerk, Albany, Ky. Bids until April 10 to construct steel high way bridge of 100-ft. span over Spring Creek on Albany and Byrdstown Rd.; plans and specifications on file with Fiscal Court at Albany and State Road Commr. at Frankfort, Ky.

Building Materials, etc.—Thos. M. Campbell, 15 Johnson Bldg., Augusta, Ga.—Manufacturers' samples, catalogues, etc., of interest to architects. (Office and equipment destroyed in recent fire.)

Building Materials.—J. S. Starr, Rock Hill, S. C.—Prices on plaster boards, metal laths, light shade pressed brick, steel for fireproof construction, steel beams, terrazzo

floors, Indiana limestone, etc., for \$10,000 bank and office building at Lancaster, S. C.

Building Materials.—S. H. Gove, Archt., Daytona, Fla.—Prices on building materials and supplies for \$25,000 hotel.

Building Materials, etc.—Atlantic Construction Co., 550 Broad St., Augusta, Ga.—Catalogues and prices on building materials, etc., of interest to contractors.

Building Materials.—A. Dee Simpson, Campaign Secy., Southwestern University, Georgetown, Tex.—Prices on building materials for \$50,000 science building.

Building Materials.—R. L. Cornell, Gen. Mgr. Kentucky River Power Co., Wootton and Morgan Bldg., Hazard, Ky.—Quotations about April 15 on building materials for structure consisting of concrete foundations, steel skeleton bricked in, with reinforced concrete floors and roof.

Canning Equipment.—H. R. C. Sharkey, Vienna, Va.—Addresses of manufacturers of canning equipment and cans.

Canning (Milk) Equipment.—See Creamery and Ice-cream Machinery, etc.—C. R. Clark.

Cash Registers, Typewriting and Adding Machines, etc.—R. del Castillo, 108 S/C Independencia, Cienfuegos, Cuba.—Interested in following, view to agencies: Cash registers, adding machines, typewriting machines, electric motors, alcohol and gasoline motors, petroleum motors, second-hand repaired automobiles, phonographs and discs and electrical supplies.

Caskets, etc.—M. E. Tyree, Verdon, Va. Addresses of manufacturers of or dealers in undertakers' supplies—caskets and handles, etc.

Cement.—Dept. of Justice, Office Supt. of Prisons, Washington, D. C.—Proposals until April 18 to furnish and deliver at United States Penitentiary, Leavenworth, Kan., 4000 lbs. Portland cement; in accordance with specifications; copies and further information upon application.

Cement (Portland).—Geo. H. Rommel Co., 639 S. Campbell St., Louisville, Ky.—Prices on about 4500 lbs. Portland cement, f. o. b. Louisville.

Conveyors.—See Hoists (Electric).—McKinney Compress Co.

Couplings (Friction Clutch).—See Electrical Machinery.—R. G. Weland.

Cotton Compress Equipment.—McKinney Compress Co., Thos. E. Craig, Mgr., McKinney, Tex.—Compress machinery; steam boilers; hoists and conveyors for cotton bales; electric drive for hoists and conveyors.

Creamery and Ice-cream Machinery, etc.—C. R. Clark, Secy., Clay Light & Ice Co., Clay, Ky.—Data on milk-handling and canning machinery, and butter and ice-cream manufacturing machinery.

Crusher (Coal).—H. E. Bonney Coal Co., A. McDonald, Mgr., Chattanooga, Tenn. Prices on small coal crusher.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Crushing Plant.—"Crusher," care Manufacturers Record, Baltimore, Md.—10x20 lower hung jaw crusher; 36x16 crusher; 20x14 plain rolls; 25x15 housed rolls; revolving dryer, 125 tons, 10 hours; 200-mesh 75-ton pulverizer; all second-hand; describe with lowest price.

Crushers (Jaw).—See Mill and Mine (Lead and Zinc) Supplies, etc.—Atlantic Lead & Zinc Co.

Crusher Hogs (Sawmill).—Lloyd H. Grandy, Box 57, Columbia, S. C.—Catalogues and prices on hogs for pulverizing scrap lumber.

Drills (Rock, Compressed Air).—De Soto Talc Co., Chatsworth, Ga.—Small gasoline air compressor outfit for drilling hard rock tunnels.

Electrical Equipment.—See Boilers and Electrical Equipment.—Holmes & Son (bakery), 107 F St. N. W., Washington, D. C.—Prices on electrical equipment.

Electric-Light Equipment.—City of Ninety-Six, S. C., W. W. Gaines, Mayor.—Prices on 3-unit transformers, 100 to 125 K. V. A. each, and wiring and lighting equipment.

Electric Motor.—See Mills (Feed Grinding).—W. L. Hall.

Electric Plant.—The Mayor, Box 181, Madison, N. C.—Bids until April 15 to install electric-light and power plant, operated by steam; specifications on file.

Electric-Light Fixtures.—Julian S. Starr, Rock Hill, S. C.—Prices on electric-light fixtures.

Electrical Installation.—Baltimore (Md.) Board of Awards, City Hall.—Bids until April 12 for special decorations and electrical illumination; W. Mohr, Supt. of Lamps and Lighting.

Electric-Light System.—See Water-works, etc.—Citizens' Water, Light & Power Co.

Electrical Machinery.—R. G. Wieland, Audubon, Iowa.—Prices on following equipment for shipment to Spencer, W. Va., about June 1: 150 to 175 H. P., 3-cyl. vertical gas engine (standard make); 100 to 125 K. W., 2300-volt, 60-cycle, 3-phase generator with exciter; 50 to 60 K. W., 2300-volt, 60-cycle, 3-phase generator with exciter; one 100 to 125 K. W. and one 50 to 60 K. W., 2300-volt, 60-cycle, single phase generators with exciters; 10 to 12 K. W., 110 V. D. C. multipolar generator; all preferred moderate or slow speed; also prices on 25 to 50 cu. ft. steel air storage tank, suited to not less than 200 lbs. per sq. in.; generator panels for above equipment, slate or marble; standard make 25 H. P. friction clutch coupling for 200 to 400 revolutions; six 24 to 30-in. ring oiling shaft hangers or floor stands (med. wgt.); will consider used equipment if first-class.

Electrical Machinery, etc.—Panama Canal, Earl I. Brown, Gen. Purchasing Officer, Washington, D. C.—Bids until April 26 to furnish boiler tubes, sheet copper, copper nails, malleable-iron castings, missing links, turnbuckles, twist drills, pipe tongs, post-hole diggers, electric cable, wire, transformers, watt-hour meters, electric switches, electrical attachments, slate, vitrified sewer pipe, magnesite pipe covering, flax packing, plate glass, buckskin gloves, chrome yellow, paper, and lumber; blanks and general information relating to this circular (No. 1031) may be obtained from this office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and Fort Mason, San Francisco; also from U. S. Engr. offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.

Electrical Supplies.—A. Dee Simpson, Campaign Secy., Southwestern University, Georgetown, Tex.—Prices on electrical supplies for \$50,000 science building.

Elevators (Electric and Hydraulic).—S. Jankowsky, Main and 4th Sts., Tulsa, Okla.—Addresses of manufacturers of electric and hydraulic elevators.

Engine (Corliss).—Crescent Cotton Oil Co., Memphis, Tenn.—300 to 400 H. P. Corliss engine; good condition; state location and lowest cash price; subject to inspection.

Engine (Corliss).—Montezuma Mfg. Co., Montezuma, Ga.—Corliss engine; second-hand, good condition, one of following sizes: 20x48, 22x42, 22x48 or 24x42.

Engine (Hoisting).—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—Lowest dealers' prices on 8x10 double-cylin-

der, double-drum hoisting engine without boiler.

Envelope Machinery.—Baltimore Office Supply Co., 641 Columbia Ave., Baltimore, Md.—To correspond with manufacturers of envelope manufacturing machinery.

Fire Apparatus.—City of Ashland, Ky., W. A. Manning, Clerk.—Bids until April 17 for triple combination pumping engine, not less than 100 H. P., pumping capacity 750 gals.; 40-gal. chemical tank, 200 ft. chemical hose, with hose body capacity; 1200 ft. 2½-in. hose with ladders and complete equipment, electric lights, electric self-starter, with Dayton airless tires, maximum weight about 10,000 lbs.; 75 H. P. motor, city service truck, with 55-ft. extension trussed ladder, electric lights and self-starter, Dayton airless tires; 40-gal. chemical tank complete, maximum weight 8000 lbs.; f. o. b. Ashland.

Flooring.—See Building Materials.—J. S. Starr.

Glass.—H. C. Tucker, West Jefferson, N. C.—Prices on plate and prism glass for \$10,000 store and hotel building.

Grinding (Razor) Machinery.—Union Razor-Cutlery Co., Union City, Ga.—Addresses of manufacturers of machinery for hollow-grinding razors.

Grinders (Electric).—Municipal Excavator Co., 200 E. Main St., Oklahoma City, Okla.—Electric grinding machines.

Hangers (Shaft, Ring Oiling).—See Electrical Machinery.—R. G. Wieland.

Heating System.—A. J. Armstrong, Shreveport, La.—Prices on heating system for \$6000 residence and school at Oak Grove, La.

Hoists (Chain).—Raleigh Iron Works Co., Raleigh, N. C.—Several Yale & Towne Mfg. Co.'s triplex blocks, capacity 1½ to 2 tons; second-hand, first-class condition.

Hoists (Electric).—See Cotton Compress Equipment.—McKinney Compress Co.

Hoists and Conveyors.—See Cotton Compress Equipment.

Hydraulic Ram.—See Mill and Mine (Lead and Zinc) Supplies, etc.—Atlantic Lead & Zinc Co.

Ice Machinery.—E. Wolford, 1221 Market St., Harrisburg, Pa.—Second-hand Remington raw water ice machine; about 5 tons capacity; state required horse-power to operate.

Ice Plant.—See Water-works, etc.—Citizens' Water, Light & Power Co.

Inclinator.—Dept. of Public Finances, Accounting Div., A. G. Ricks, Commr., New Orleans, La.—Bids until April 11 to build garbage inclinator of type manufactured by Decarie Inclinator Co. on Newton St., Brooklyn, and River St., in Algiers; plans and specifications on file with City Engr.

Kitchen Utensils.—W. F. Curran, Box 1049, Waco, Tex.—Addresses of manufacturers specializing in kitchen utensils.

Laundry Machinery.—Dunlop Coat Supply Co., 217 W. 14th St., Kansas City, Mo.—To install laundry machinery; estimated cost \$10,000.

Knitting Machinery.—John M. Maxwell, Box 304, Hopewell, Va.—Prices on equipment for hosiery mill.

Limestone.—See Building Materials.—J. S. Starr.

Locomotive.—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—Dealers' prices on 7 to 8-ton 36-in. gauge locomotive; rebuilt or second-hand; also prices to consumer or user for immediate delivery.

Machines.—See Scales (Automatic).—Box 186.

Mantels.—W. L. Shelton, Greenville, Miss.—Designs of brick mantels.

Metal Lath and Lumber.—S. Jankowsky, Main and 4th Sts., Tulsa, Okla.—Addresses of manufacturers of metal lath and metal lumber used to construct lighter floor slabs.

Metals (Iron, Copper Bars).—Raleigh Iron Works Co., Raleigh, N. C.—About 1500 tons high silicon, high manganese foundry iron and about 90 tons pure drawn or rolled copper bars approximating 2½-in. x 9/16-in.; for delivery over balance of this and possibly first quarter of next year.

Metal-working Machinery.—Wm. D. Edwards, Engr., Southbridge, Mass.—Names and addresses of manufacturers of machinery for manufacturing tin cans.

Metal Weather Strips, etc.—Cantwell & Bohn, Mutual Bldg., Richmond, Va.—Addresses of window screen and metal weather strip manufacturers in vicinity of Virginia.

Metal Windows.—Read Bros., Carthage, Tenn.—Prices on metal windows for store building.

Mill and Mine (Lead and Zinc) Supplies, etc.—Atlantic Lead & Zinc Co., Faber, Va.—Catalogues of mill and mine supplies and lists of odd lots of same in used condition; in market for second-hand machinery, including jaw crusher, 9x15-in. opening; fine rolls; small ball mill, Harding type; large hydraulic ram; wood or iron tanks, about 10,000 gals. capacity, and possibly other tanks; also stump pullers, medium size.

Mills (Feed Grinding).—W. L. Hall, Greenville, N. C.—Data on manufacture (formula) for making alfalfa molasses feed; prices on grinding and mixing machinery; also on electric motor.

Mining (Clay) Machinery.—Paducah Clay Co., Fraternity Bldg., Paducah, Ky.—Will later purchase additional machinery for plant at Marshall, Ky.

Mining Machinery.—Anglo-Belgian Engineering Co., 155 Fenchurch St., London E. C., England.—Addresses of engineering firms constructing mining machines, especially for cutting, bringing down and loading coal at face.

Mining Machinery.—U. Frere Deulin, Gaynes Rd., Marsden, Uplminster, Essex, England.—To correspond with American firms making mining machinery and supplies; for introduction to Belgian coal operators after the war.

Motors (Electrical, Gasoline, etc.).—See Cash Registers, Typewriting and Adding Machines, etc.—R. del Castillo.

Overall and Trousers Machinery.—Chas. Colyer, 2080 Post St., Jacksonville, Fla.—Catalogues and prices on cutting machinery, etc., for overalls and trousers.

Paving.—City Commrs., Clarksdale, Miss.—Bids until April 18 to construct concrete street improvements; 7000 sq. ft. sidewalk, 1500 sq. ft. crossings and 200 lin. ft. curb and gutter; in addition, property-owners will construct 45,000 sq. ft. of sidewalk; for specifications address W. S. Bobo, Gen. Supt.; A. C. Tuttle, Clerk.

Paving.—City of Hazard, Ky., W. M. Pursfull, Mayor.—Bids until May 1 on about 1½ mi. brick, concrete or macadam street paving.

Paving.—Board Commrs., John W. Flenken, Commr. Streets and Public Improvements, Knoxville, Tenn.—Bids until April 14 to pave, grade and curb improvement Dists. 116, 117, 119, 120 and 121; about 9000 sq. yds.; profiles, maps and specifications obtainable from City Engr., J. B. McCalla.

Paving.—Baltimore (Md.) Board of Awards, City Hall.—Bids until Apr. 12 to grade and pave with cement-concrete various alleys; specifications and proposal sheets furnished by department of R. M. Cooksey, Highways Engr.

Pipe Line.—City Commrs., Fort Worth, Tex.—Bids until April 8 to construct pipe line to convey water from reservoir owned by city for distance 14,357 ft.; pipe to be cast-iron, steel, or suitable grade of concrete; 1516 ft. of pipe to have 36-in. inside diam. and 12,841 ft. 48-in. inside diam.; conduit to withstand maximum internal pressure of 30 lbs. per sq. in.; plans and information from City Engr.; M. P. Harwood, City Secy.

Pipe (Terra-cotta, Concrete).—F. M. Runnels, Durham, N. C.—Prices on about 15,000 ft. 10-in. and 26,000 ft. 24-in. terra-cotta pipe; also prices on concrete pipe in same quantity and sizes; f. o. b. Durham.

Piping.—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—Dealers' prices on 3000 ft. 2-in. second-hand black pipe and 2000 ft. 1-in. pipe.

Presses (Baling).—L. J. Cohen & Co., 23 Branch St., St. Louis, Mo.—Second-hand baling presses.

Rails.—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—45 tons 30-lb. relaying rails.

Refrigerating Machinery.—Sea Food Market, 415 E. Main St., Charlottesville, Va.—Refrigerating machine and fixtures.

Retaining Wall.—Board of Commrs., St. Petersburg, Fla.—Bids to construct concrete retaining wall from concrete bridge on 8th St. along south bank of Booker Creek for 270 ft.; specifications on file with W. F. Divine, City Clerk; bids opened April 3.

Refining (Pine Products) Equipment.—Free Stump Remover Mfg. Co., A. T. Ratliff, Mgr., Laurel, Miss.—Prices on condensers, retorts, pumps, stills, etc., to equip pine products refining plant; destructive distillation process.

Road Construction.—Brazos County Commrs., Bryan, Tex.—Bids until April 13 to construct system of roads and bridges in Road Dist. No. 1; contract will include con-

struction of 85 mi. of earth and gravel road and surfacing about 5 mi. of road with bituminous macadam or rock asphalt; separate bids for surfacing; plans and specifications obtainable from Abney & McCormick Engrs., R. D. No. 1, Bryan, Tex., for \$14.

Road Construction.—Road Board, Precinct No. 8 of Robertson County, W. P. Walter, Chrmn., Franklin, Tex.—Bids until April 5 to construct 7 mi. road; bids include furnishing gravel, etc., constructing grades, ditches, culverts and bridges, except 200-ft. bridge across Barton Branch. Contr. has option to construct 5 mi. additional road, part earth grade and part sand and clay; also additional five miles, portion to be earth grade, portion sand and clay and portion graveled; plans furnished for \$5 by Lamar Acker, Engr., Calvert, Tex., who will supervise construction; also receive bids at same time to construct 200-ft. bridge across Barton Branch, bidders to furnish plans and specifications; consider plans for wooden bridge with creosoted piling or steel bridge with concrete piers and abutment; J. L. Goodman, County Judge.

Road Construction.—Rockwall County Commrs., J. W. Reese, County Judge, Rockwall, Tex.—Bids until April 10 to construct Rockwall-Dallas highway through East Fork Bottom for Good Roads Dist. No. 1; work includes 27,000 cubic yards of grading, 9000 square yards of triple-ply asphalt macadam, 940 cu. yds. of gravel, 500 lin. ft. of treated timber trestle, 150 lin. ft. of corrugated metal pipe, 3 acres clearing and grubbing, 300 net tons of riprap, etc.; plans and specifications obtainable from J. W. Reese, County Judge, or J. F. Witt, Engr., Dallas, Tex.

Road Machinery.—P. H. Nash, Dir. Engr. Highways, Lake County, Texas, Fla.—Catalogues and prices on tractor, grading machines, drags, dump wagons, trailers, tools, pumps, wheeled scrapers, camping equipment, etc., for road maintenance, 208-mi. system newly-constructed sand-clay and asphalt roads.

Sand-blast Machine, etc.—Scandinavian Glass Mfg. Co., Avant, Okla.—Prices on sand-blast machine; also pot tanks.

Sawmill Equipment.—G. B. White, Aliceville, Ala.—50 H. P. sawmill equipment, including boiler, engine, edger, carriage and saw.

Sawmill Equipment.—M. L. Pinkston, Pinkston Milling Co., Dresden, Tenn.—Will open bids April 1 on sawmill equipment, including saws, belts, etc.

Scales (Automatic).—Box 186, Hot Springs, N. C.—Correspondence with manufacturers of vending machines, including automatic scales for personal weighing.

Screens (Window).—See Metal Weather Strips, etc.—Cantwell & Bohn.

Sheet Iron.—Big Sandy Light Co., R. Parker, Mgr., Big Sandy, Tex.—Prices as galvanized and black sheet iron.

Shovel (Traction, Steam).—A. P. Gilbert, manufacturers' agent, Durham, N. C.—For immediate delivery, a ½ or ¾-yd. traction steam shovel; new or second-hand; give prices, description and time of delivery.

Sprinkler System.—Cooke & Co., Beaumont, Tex.—Prices on sprinkler system for \$60,000 store building.

Steel.—See Building Materials.—Julian S. Starr.

Steel Beams.—See Building Materials.—J. S. Starr.

Steel Beams.—H. C. Tucker, West Jefferson, N. C.—Prices on steel beams for \$14,000 building.

Steel and Iron, Malleable-Iron Castings, etc.—Panama Canal, Earl I. Brown, Gen. Purchasing Officer, Washington, D. C.—Bids until April 29 to furnish galvanized sheet steel or iron, planished iron, malleable-iron castings, steel and iron repair parts for cars, spring plates, drawbar springs, brake beams, car journal bearings, steel cable, hose packing, asbestos gaskets, magnesite pipe covering, drain tile, window glass, calcium carbide, etc.; blanks and general information relating to this circular (No. 1029) may be obtained from this office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and Fort Mason, San Francisco; also from U. S. Engr. offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.

Stone Work.—Chas. B. Kilgus, Dianola, Miss.—Prices on stone work, etc., for \$5000 dwelling.

Stamp Pullers.—See Mill and Mine (Lead and Zinc) Supplies, etc.—Atlantic Lead & Zinc Co.

Superheater.—Lloyd H. Grandy, Box 87, Columbia, S. C.—Catalogues and prices on superheater.

Tanks (Steel, Air-storage).—See Electrical Machinery.—R. G. Wieland.

Tanks.—See Sand-blast Machine, etc.—Scandinavian Glass Mfg. Co.

Tanks.—See Mill and Mine (Lead and Zinc) Supplies, etc.—Atlantic Lead & Zinc Co.

Tires (Rubber).—T. C. Caldwell, corner 7th and Trade Sts., Winston-Salem, N. C.—Correspondence with manufacturers of and dealers in rubber tires for buggies, hacks and auto.

Toys.—Nolan R. Harmon, Jr., Long Beach, Miss.—Addresses of manufacturers of toys.

Tractor.—City Commrs., Galveston, Tex. Bids until April 13 to furnish and install 2-wheel gasoline motor-driven tractor for aerial truck weighing 10,000 lbs.; also for gasoline motor combination pumper and hose automobile to deliver not less than 700 gals. water per minute; bidders to furnish specifications; John D. Kelley, City Secy.

Turpentine Machinery.—See Refining (Pine Products) Equipment.—Free Stump Remover Mfg. Co.

Undertakers' Supplies.—See Caskets, etc.—M. E. Tyree.

Vault Doors.—H. C. Tucker, West Jefferson, N. C.—Prices on vault doors for \$10,000 building.

Vault Doors.—Read Bros., Carthage, Tenn.—Prices on vault doors.

Wagons (Lumber-hauling).—Barker Lumber Co., Charleston, W. Va.—Prices on about 10 wagons, equipped with roller bearings, about 2 tons capacity; for hauling lumber over country roads.

Water-works.—City of Wellston, Okla.—Bids until April 17 to construct water-works; plans by Benham Engineering Co., Engr., 12th floor, Colcord Bldg., Oklahoma City; 4000 lin. ft. 6-in. and 5000 lin. ft. 14-in. cast-iron pipe and 4500 ft. 2-in. wrought-iron pipe; 7000 lbs. special castings; 150 2-in. crosses; 22 fire hydrants; water crane hydrant; valves and boxes; 30,000-gal. elevated tank; one 7½ H. P. and one 25 H. P. gas engines; 100 G. P. M. centrifugal pump; 250 G. P. M. horizontal duplex pump; alternate bid for air compressor, receivers, etc.; powerhouse building and 100,000-gal. surface brick reservoir; plans, etc., obtainable from Engr. for \$5.

Water-works, etc.—Citizens' Water, Light & Power Co., W. B. Swearingen, Pres., Lockhart, Tex.—Bids until April 15 to construct water-works, ice plant and electric-light system; steel, hemispherical bottom tank with tower; concrete and iron pump-house; concrete and brick house for light and ice plant; 30-ton ice machine, installed complete; 100 K. W. electric generating plant, installed complete; 400 tons class B cast-iron pipe, 4, 6 and 8-in., laid; 50 standard fire hydrants, installed; 200 water meters, installed, ½ and ¾-in.; 300 Michigan cedar poles, 30-35 ft., with fittings, set; 15 mi. weather-proof wire, Nos. 4 to 10, strung; 50 electric service meters, placed; plans and specifications obtainable from Henry E. Elrod, Consult. Engr., 907 Southwestern Life Bldg., Dallas, for \$10.

Water-works Construction.—C. C. Pasby, City Clerk, Memphis, Tenn.—Bids until Apr. 11 to construct following: Reservoir No. 4, along Bayou Gayoso from 2d to 2d St.—320 cu. yds. foundation concrete, 1100 cu. yds. concrete in walls, 165 cu. yds. concrete in channel lining and 3300 cu. yds. excavation; reservoir No. 3, along Bayou Gayoso from Mill Ave. to 2d St.—490 cu. yds. concrete channel lining, 81 cu. yds. concrete in gravity wall, 5300 cu. yds. channel excavation, 40,000 cu. yds. reservoir excavation and 600 cu. yds. footing concrete; Special North Memphis Levee—Reservoir No. 2 and east part of No. 1, 85 ft. west of Main St. to Mill Ave., along Bayou Gayoso—1262 cu. yds. reinforced concrete in arch section and retaining wall, 720 cu. yds. footing concrete, 800 cu. yds. concrete and gravity wall, 165 cu. yds. concrete in channel lining and 2350 cu. yds. excavation; specifications and profiles on file with City Engr.; T. C. Ashcroft, Mayor.

Well-drilling Equipment.—United Oil & Gas Co., 215 First National Bank Bldg., Houston, Tex.—Will buy 3600 ft. 6-in. casing, pump rig, etc., from April 15 to May 15.

Wharf Construction.—City of Houston, Tex., Ben Campbell, Mayor.—Bids until April 23 to construct following: Wharf No.

4 at Houston Turning Basin, reinforced concrete construction, 130x750 ft.; steel frame crane shed at wharf; separate bids for each of above; specifications and information obtainable from E. E. Sands, City Engr., for \$25.

Windmills.—Neenah Packing Co., Neenah, Va.—Addresses of manufacturers of windmills.

Window Glass Plant.—Southwestern Construction & Engineering Co., Littlefield Bldg., Austin, Tex.—Catalogues and prices on machinery for complete 36-blower window glass plant.

Wire Rope.—John G. Duncan Co., 208 W. Jackson Ave., Knoxville, Tenn.—9000 ft. 1-in. second-hand guy rope for derrick use.

Wireworking Machinery.—Gulf Cup & Still Co., Pensacola, Fla.—Wire straightening machine; new or second-hand.

Wood-veneering Equipment.—T. M. Thornton, Contr., Hattiesburg, Miss.—Data and prices on wood-veneering outfit.

Woodworking Machinery.—G. W. and C. M. Wall, Southmont, N. C.—Horizontal band resaw; boxboard matcher; automatic hopper feed-box board squeezer.

ford & Gulf Railway Co., has, it is reported, made a proposal to build a line from Weatherford to Bridgeport, Tex., about 30 mi. It will be considered by the Weatherford Chamber of Commerce.

Va., Williamsburg.—Manhattan, Toano & Norfolk Railway Co., authorized capital \$100,000, has been granted charter to build its projected line from West Point to Norfolk, Va., about 67 mi., via the proposed new plant of E. I. du Pont de Nemours & Co. to be located near Yorktown. An extension to Richmond may also be made under the charter. Dr. H. U. Stephenson of Toano, Va., is Pres.; F. H. Sprague of Washington, D. C., V.-P. and Gen. Mgr., and A. W. Jennings of Toano, Va., Treas.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Jester.—Nichols Contracting Co. of Atlanta is contractor for the extension of the Chattahoochee Valley Ry. from Jester south, about 10 mi., to connect with the Central of Georgia Ry. between Columbus, Ga., and Opelika, Ala.

Ala., Birmingham.—Proposed line of Birmingham Interurban Development Co. from Birmingham to Jasper, Ala., via Warrior River, Dora and Cordova, would be 45 mi. long, with bridges over the Locust Fork and the Mulberry Fork of the Warrior; to be operated with electricity; route lies through rough country; bids for construction not yet invited; W. A. Spencer of Wylam, Ala., is Pres.; A. S. Preston of Jasper, V.-P., and W. W. Shortridge, Hotel Empire, Birmingham, Treas. and Secy.

Fla., Plant City.—E. T. Roux & Son of Plant City are reported planning 20 or 30 mi. of railroad to develop timberland near Bartow, Fla.

Ky., Barbourville.—Dempster & McFarlane of Knoxville, Tenn., have taken a contract for 8 mi. on the Cumberland & Manchester R. R. from Barbourville to Manchester, Ky., 24 mi. Read Construction Co., Hazelton, Pa., is Gen. Contr.

Ky., Ashland.—Ashland-Greenup Railway Co. of Ashland, capital \$3000, is chartered. Incorporators: Wm. L. Bybee, Ben. E. Tate and S. S. Willis.

Ky., Marshall.—Paducah Clay Co. will build about 3 mi. of railroad track for industrial purposes. H. R. Lindsey, Fraternity Bldg., Paducah, Ky., is Pres.

Ky., Paducah.—Paducah & Illinois R. R. Co. plans to build freight and passenger terminals bounded by Washington and Adams Sts. and 2d and 3d Sts. Franchise from the city to build to this location is being asked; John Howe Peyton, Pres., Nashville, Chattanooga & St. Louis Ry., Nashville, Tenn., is V.-P. of the Paducah & Illinois.

Miss., Clarksdale.—Construction of a railroad from Clarksdale to the Mississippi River, about 10 mi. is reported contemplated by the city. Address the Mayor.

Miss., McComb City.—Right of way is nearly all obtained for the proposed electric railway of the McComb-Magnolia Light & Ry. Co., to be about 8 mi. long. A. H. Jones is Mgr.

Mo., Curzon.—Contract is reported let by the Chicago, Burlington & Quincy R. R. to the J. J. McCaughey Co. of Chicago for second track construction near Curzon, including team work of approximately 112,000 cu. yds.

Mo., Emma.—Construction of an electric railway from Emma and Sweet Springs may be undertaken by the Emma Creamery Co.

Okla., Bartlesville.—Bartlesville Chamber of Commerce, it is announced, offers \$50,000 bonus for the construction of a railroad from a trunk line connection east of Bartlesville via Bartlesville to Pawhuska on the west, about 40 or 50 mi. Richard Flood is said to be promoting plan for such a road. F. M. Overlies is chairman of the railroad committee.

Okla., Beaver.—W. P. Byers of Dombey, Okla., and others of Liberal, Kans., have asked charter for the Oklahoma, Kansas & Northern Railroad Co. to build a line about 40 mi. long connecting Beaver and Liberal. Capital stock \$100,000.

Tenn., Chattanooga.—Nashville, Chattanooga & St. Louis Ry. contemplates building two industrial spurs costing about \$150,000 each, and a \$500,000 bridge near Cravens. H. McDonald, Nashville, Tenn., is Ch. Engr.

Tex., San Antonio.—Thomas & Jones of St. Louis are general contractors for the construction of the proposed new terminals of the Missouri, Kansas & Texas Ry.; cost will be about \$1,000,000, exclusive of the land; plans for construction not yet completed. C. E. Schaff, St. Louis, Mo., is Receiver and Pres.

Tex., Marlin.—Charter is prepared for the Marlin-Temple Interurban Promotion Co. and steps are to be taken to secure incorporation immediately. S. D. Hanna, Ch. Engr., Temple, Tex., has outlined three routes for a selection. G. W. Glass, Pres. Marlin Chamber of Commerce, and others are interested.

Tex., Weatherford.—W. D. Stratton, one of the promoters of the old Chicago, Weather-

STREET RAILWAYS

Ark., Fort Smith.—Fort Smith Light & Traction Co. contemplates reconstruction and other track improvements costing about \$50,000. H. C. Hoagland is Gen. Mgr.

Mo., Kansas City.—Kansas City Railways Co. has requested bids for the construction of seven extensions of varying lengths.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Office Removed.

On April 1 the office of the Laclede Steel Co., St. Louis, Mo., was moved from the Merchants-Laclede Bldg. to 1209 Federal Reserve Bank Bldg.

Removal Notice.

Stone & Webster, constructing engineers, Boston, New York and Chicago, have removed their New York office to the Equitable Bldg., 129 Broadway.

Architect Desires Catalogues.

Thos. M. Campbell, Architect, Augusta, Ga., whose office and equipment were destroyed in the recent large fire in that city, desires manufacturers' samples, catalogues, etc., of materials and articles used in building.

No-Co-Ro Trade-Mark.

The Canton Culvert & Silo Co., Canton, O., has advised us that its opposition to an infringement on its No-Co-Ro trade-mark has been sustained by the Court of Appeals of the District of Columbia.

Tennessee Bricks Go to Indiana.

Special interest attaches to a large order recently secured by the Key-James Brick Co., Chattanooga, Tenn., through its Cincinnati (O.) agent, for shale-face brick for delivery at Batesville, Ind. Shipments are now being made.

Materials for Rebuilding Paris, Tex.

The promptness with which the business men of Paris, Tex., are going to work to rebuild that city, recently laid waste by fire, is indicated by a request from Barry & Smith, architects, Paris, for catalogues and samples of materials, etc., from manufacturers and material men.

Motion Picture Advertising.

Five reels of motion pictures showing how Dixie Gem coal is mined, prepared and shipped are employed by the Southern Coal & Coke Co., Knoxville, Tenn., to advertise this well-known brand of coal. Thorough posting of notices of the feature in the towns where the plan has been executed and sending out complimentary tickets has brought large crowds to see the pictures, and the result is said to be highly favorable.

Engine Factory Doubles Capacity.

With the reincorporation of the Griffith & Wedge Co., Zanesville, O., with \$375,000 capital stock and entrance of F. A. Elishop as secretary, announcement is made that the plant's output will be doubled and structural steel manufacture added to its products. Since 1910 the company has manufactured the Ohio Corliss engine, that has become well known over a large territory.

Well-drilling Contracts Awarded.

The Hughes Specialty Well Drilling Co., 96 Ashley Ave., Charleston, S. C., has been awarded contract by Lockwood, Greene & Co., Atlanta, Ga., for one well 500 feet by 8 inches by 6 inches, for the International Cotton Mills of Boston, at the Hogansville (Ga.) plant now under construction; one to three wells, each 200 feet by 10 inches by 8 inches, for the city of Orangeburg, S. C.; one well 600 feet by 8 inches by 6 inches, for the Sumter (S. C.) Lighting Co.

Large Output of Gas Engines.

If the demand for Bruce-Macbeth gas engines continues to increase, enlargements to the plant will be necessary to maintain the company's usual promptness, according to advices to the Manufacturers Record. Among orders recently booked from a wide territory are one from the Corsicana (Tex.) Cotton Mills for two 350-horse-power four-cylinder vertical engines; from the city of Clarksburg, W. Va., for one 350-horse-power four-cylinder and one 50-horse-power vertical engine, and one from the American Well & Prospecting Co., Corsicana, Tex., for one 350-horse-power four-cylinder vertical engine.

Enlarge Battery Service Facilities.

Increased sales have forced The Electric Storage Battery Co., Philadelphia, to arrange for enlargements to service stations throughout the country. In Atlanta, Ga., a building of 22,500 square feet area, with provision for the addition of 13,000 square feet, will be erected as soon as the ground is cleared. On May 1 the Kansas City (Mo.) office will be moved from 1808 Main St. to larger quarters at 17th and Walnut Sts. The battery depot at 1828 L St. N. W., Washington, D. C., has been enlarged. A large building was recently erected in Boston for service depot purposes, the New York garage at 527 W. 23d St. will be enlarged, and improved facilities are being or have been furnished at Rochester, N. Y., Chicago, Detroit and San Francisco.

Metal Doors and Trim Standardized.

After several years' experience in manufacturing hollow steel doors, windows and trim, the Solar Metal Products Co., Chicago, a reorganization of the Watson Solar Window Co., has developed what it terms a new deal in this class of article, through standardization of specifications and manufacturing process, with consequent lowered uniform prices and improved product. It was found by this company that about 80 per cent. of the special orders, requiring special drafting, plan of manufacture, etc., could be made to conform with set measurements

[Continued on Page 92.]

Merchants-Mechanics National Bank

South and Water Sts., BALTIMORE, MD.
DOUGLAS H. THOMAS, President.
JNO. B. RAMSAY, V.-P. and Chm. Bd. of Dir.
JOHN B. H. DUNN, Cashier.
Capital \$2,000,000. Deposits \$21,670,000.
Surplus and Profits \$2,175,000.
Accounts of Banks, Bankers, Corporations and Individuals solicited.
We invite correspondence.

The National Exchange Bank OF BALTIMORE, MD.

Hopkins Place, German and Liberty Sts.
Capital \$1,500,000.
March 30, 1915, Surplus and Profits, \$350,000.00.
OFFICERS.
WALDO NEWCOMB, President.
SUMNERFIELD BALDWIN, Vice-Pres.
R. VINTON LANSDALE, Cashier.
C. G. MORGAN, Asst. Cashier.
Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals invited.

We Buy Bonds

City, County, School and Road, from Municipalities and Contractors.
WRITE
THE PROVIDENT SAVINGS BANK & TRUST CO.
CINCINNATI OHIO

Municipal Bonds BOUGHT

from Contractors and Municipalities

STACY & BRAUN

Second National Bank Bldg., TOLEDO, O.

First National Bank

RICHMOND, VIRGINIA
Capital and Surplus - - - - - \$3,000,000
JNO. B. PURCELL, President.
JNO. M. MILLER, JR., Vice-Pres.
W. M. ADISON, Cashier.

WE BUY BONDS CITY, COUNTY, SCHOOL DISTRICT

CORRESPONDENCE INVITED FROM CONTRACTORS AND OFFICIALS

SIDNEY SPITZER & CO., Spitzer Building, TOLEDO, OHIO
NEW YORK CHICAGO CINCINNATI

CONTRACTORS AND MANUFACTURERS



We Make Them Promptly.

Headquarters for SEALS, STOCK CERTIFICATES, STENCILS,

STEEL DIES, BRASS SIGNS, ENAMEL PLATES,

MEMORIAL PLATES, CHURCH SEALS AND FEW PLATES,

Made on our Premises. Send for Catalogue.

THE J. F. W. DORMAN COMPANY
BALTIMORE, MD.

St. Louis Merchants Bridge Terminal Railway Co. First Mortgage Gold 5s

Dated Oct. 1, 1893. Due Oct. 1, 1930

These bonds are secured by a first mortgage on all property of the Company.

Guaranteed as to principal and interest by the Terminal R. R. Association of St. Louis by endorsement.

Listed on the New York Stock Exchange.

Price and particulars on request.

A. B. Leach & Co.

Investment Securities

149 Broadway, New York

Chicago Philadelphia Buffalo
Boston Baltimore Los Angeles

Delaware Trust Company

WILMINGTON, DELAWARE

INCORPORATING under broad, liberal, safe and stable Delaware laws. A fully equipped department for proper organization and registration of corporations.

BANKING AND TRUST department gives special attention to out-of-town customers' accounts.

TITLE DEPARTMENT examines and guarantees title to realty throughout Delaware.

REALTY DEPARTMENT has sites for manufacturing industries. Modern methods of management of property.

J. ERNEST SMITH, Pres. and Gen. Counsel.
WM. G. TAYLOR, Vice-Pres. and Treasurer.
HARRY W. DAVIS, Vice-Pres. and Secretary.
W. W. PUSEY, 2d Title and Real Estate Officer.

The First National Bank OF KEY WEST, FLA.

United States Depository and Disbursing Agent.

Capital - - - - - \$100,000
Surplus and Undivided Profits - 40,000
A general banking business transacted. Special attention given to collections.

GUNTER & SAWYERS

BUY School, Electric Light, Water, Sewer, Road, Levee and Drainage Bonds.

LITTLE ROCK, ARK JACKSONVILLE, FLA.

THE TILLOTSON & WOLCOTT CO. CLEVELAND, OHIO

BUYERS OF COUNTY CITY SCHOOL AND DRAINAGE BONDS

Correspondence Solicited

POWELL, GARARD & CO.

39 S. La Salle Street

CHICAGO, ILL.

We Buy Southern Municipal Bonds (County, City, School, Road and Drainage District).

FINANCIAL NEWS

FINANCIAL CORPORATIONS

Ala., Birmingham.—J. Standish Clark Co. has filed articles of incorporation to do a general realty business, loans, etc.; capital \$5000; J. Standish Clark, Prest.; Frank P. Rainville, V.-P., and M. I. Rainfield, Secy.-Treas.

Ark., Mena.—Ozark Mutual Life Assn. chartered; H. W. Cardwell, Prest.; R. R. St. John, Treas. and V.-P.; B. A. Tomlinson, Secy. Business is to begin at once.

Fla., Jacksonville.—Co-operative Loan Association has made application for charter; capital \$300,000; J. B. Yerkes, Prest.; C. C. Jones, V.-P., and Paul E. Twitty, Secy. and Treas.

Ky., Cloverport.—Breckinridge Bank and the Bank of Cloverport have consolidated under the name of the Breckinridge Bank of Cloverport; capital \$30,000; surplus \$6000; A. B. Skillman, Prest.; Fred W. Fraize, V.-P.; Paul Lewis, Cash., and O. T. Skillman, Asst. Cash. Business began Feb. 28.

Ky., Dayton.—Day-Bell Savings, Loan & Building Association, capital \$50,000, is incptd by Augustus Day, Edward H. Pille, H. A. Otter, W. H. Newell, William C. Buten and G. L. Halls.

Ky., Eddyville.—First State Bank, capital \$25,000, incptd. by A. C. Ramey, W. N. Cummins, J. M. Smith, N. W. Utley and C. C. Cummins.

Ky., Hickman.—The Farmers & Merchants' Bank has increased capital from \$50,000 to \$75,000 to take over the Peoples' Bank. Surplus is \$40,000. J. J. C. Bondurant, Prest., and C. B. Travis, Cashr.

Ky., Irvine.—Estill County Building and Loan Assn., Inc., capital \$100,000, will begin business about May 1; organizers, Jas. A. Wallace, V. M. Galt, D. McConnelly, M. Sargent and Clyde Gains.

Ky., Louisville.—Southern Underwriters' Agency, capital \$10,000, is incptd. by John M. Davis and C. R. Chadwick, Louisville, and James H. Polsgrove, Frankfort.

Ky., Paducah.—Ohio Valley Trust Co., incptd., capital \$50,000; Frank M. Fisher will be Prest.; J. C. Demert, Treas.; W. A. Berry, Ruben Smith, E. G. Boone and others, incptrs. Business will begin about June 1.

Ky., Stanford.—Lincoln Trust Co., with \$25,000 capital, is to be organized by directors of Lincoln National Bank at Stanford.

La., Lake Charles.—Calcasieu National Bank of Southwest Louisiana has begun business; capital and surplus \$750,000. The concern is a consolidation of the Calcasieu National Bank and the Calcasieu Trust and Savings Bank.

Md., Tilghman.—Tilghman Bank, capital \$10,000, surplus \$3000, is to be chartered; incorporators, Harry R. Howeth, S. Taylor Harrison, S. Kennedy Wilson, J. Thomas Faulkner, J. Frank Fairbank, William F. Rowleson, Richard S. Dodson and others.

Miss., Greenwood.—Greenwood Bank & Trust Co. chartered; capital \$35,000; surplus \$3500. Incptrs: W. R. Humphrey, Greenwood; J. B. Stirling, John Hart, Ben Hart, Jackson; C. S. Butterfield and S. C. Bull, Brookhaven. Business is to begin May 1.

N. C., Fayetteville.—Home Building and Loan Association incptd.; capital \$4,000,000; has begun business; Dr. J. V. McGowan, Prest.; A. B. McMillan, V.-P.; Thos. H. Sutton, Secy. and Treas.

N. C., Hamlet.—First National Bank, chartered with \$25,000, will begin business about Apr. 20; E. N. Rhodes, Prest.; Noah H. Jenerette, Cash., and E. P. Powell, V.-P.

N. C., Mayodan.—A new bank with \$10,000 capital is being organized by local parties. Business is expected to begin about May 1.

N. C., Beulaville.—Bank of Beulaville, capital \$25,000, is incptd. by J. G. Bostic, C. H. Cashwell, Felix Edwards and others.

S. C., Columbia.—The Intercounty Farmers' Mutual Protective Co. is chartered; petitioners, W. J. Elliott, H. H. Hinnant, H. Clayton, B. M. English, C. W. King, George W. Thomas and D. B. Boney.

S. C., Columbia.—Farmers' Mutual Protection Assn. of Sumter is commissioned to do a general fire insurance business; petitioners, I. C. Strauss, H. C. Haynsworth of Sumter, E. W. Dabbs of Mayesville, Robert M. Cooper of Wisacky and others.

S. C., Estill.—Commercial Bank is commissioned; capital \$25,000; petitioners, S. M.

Clarke, M. H. O'Neal, E. H. Wyman and W. E. Peoples.

S. C., Florence.—Florence Mutual Fire Co. is being organized by J. W. McCowan, L. A. McCall, Jr., W. D. Frierson, E. M. Matthews, R. E. Currin, Florence; W. H. Keith, W. H. Purvis, Timmons, and others.

S. C., Sumter.—Steps are being taken to organize a mutual fire insurance company to operate in Sumter, Clarendon and Lee counties. Among those interested are L. C. Strauss, E. W. Dabbs, Salem; J. M. Kelly, W. F. Shaw, Sumter; James Reeves, Alcolu; Joe R. Griffin, Pinewood; T. H. Gentry, Summerton; T. G. McLeod, Bishopville; R. M. Cooper, Wisacky, and J. K. Richbourg, Spring Hill.

Tex., Roly.—First State Bank has begun business; capital \$20,000. O. C. Walker, Cash. Va., Brookneal.—First National Bank of Brookneal, a conversion of the Bank of Brookneal, has begun business. E. T. Yeman is Cash.

Va., Craigsville.—Bank of Craigsville chartered; capital \$10,000 to \$25,000, will begin business between June 1 and 15; W. S. Johnson, Prest., Craigsville; J. L. Hamilton, V.-P., Fordwick, and Oliver Brown, Secy. and Cash., Craigsville, S. C.

W. Va., Wheeling.—Citizens' Savings & Trust Co., capital \$200,000, is incptd. by Alex. Glass, George M. Ford, John L. Ellis, William F. McKinley, L. F. Haller, H. F. Jeurgens and others.

NEW SECURITIES

Ala., Decatur.—Election is to be called within 50 days to vote on about \$50,000 lighting-plant bonds. Address Mayor Nelson.

Ala., Florence.—Election is to be called to vote on \$50,000 high-school bonds. Address The Mayor.

Ala., Mobile.—\$150,000 5 per cent. 20-year Mobile county school bonds, dated June 1, 1916, and maturing June 1, 1936, have been purchased by Otto Marx & Co., Birmingham, for \$159,405. Geo. E. Stone is County Treas.

Ark., Malvern.—\$65,700 water and \$23,800 sewer bonds recently voted and offered Feb. 25 by Water-works-improvement Dist. No. 10 have been declared void. A new district has been formed for water and sewers and petitions are being circulated for another bond election. W. A. Haley is Mayor.

Ark., Marion.—\$700,000 5½ per cent. Crittenden county drainage bonds have been purchased by William R. Compton & Co., St. Louis.

D. C., Takoma Park.—\$25,000 reservoir bonds are voted. Address F. B. McNeill.

Fla., Clearwater.—Bids will be received until 8 P. M. Apr. 19 for \$50,000 5 per cent. 30-year refunding bonds; dated Apr. 1, 1916. R. T. Daniel is City Clerk.

Fla., Gainesville.—Bids will be received until 3 P. M. Apr. 29 by I. E. Webster, Secy. Board Public Works, for \$21,000 5 per cent. paving bonds.

Fla., Tallahassee.—Election is to be held May 2 to vote on \$15,000 5 per cent. 30-year street-improvement bonds. D. M. Lowry is Mayor and A. H. Williams, City Clerk.

Fla., West Palm Beach.—\$15,000 sewer bonds will probably be issued. Address The Mayor.

Ga., Leslie.—Election is to be held in about 30 days to vote on \$10,000 school-building bonds. Address Board of Education.

Ga., Metter.—\$15,000 5 per cent. \$500 denomination light and school bonds are voted. M. E. Everett is Clerk of Council.

Ga., Ringgold.—\$64,000 4½ per cent. \$100 denomination road bonds are voted. L. B. Wiggins is Clerk Board County Commrs.

Ga., Tifton.—Election is to be held Apr. 11 to vote on the following 5 per cent. \$1000 denomination bonds: Schools, \$30,000; water-works, \$25,000; street paving, \$15,000; fire department, \$6000. H. H. Hargrett is Mayor and Keith Carson Clerk and Treas.

Ky., Campton.—Election is to be held in Wolfe county May 6 to vote on \$50,000 road bonds. Address County Commrs.

Ky., Glasgow.—Election is to be held in Barren county May 20 to vote on road bonds. Address County Commrs.

Ky., Edmondson.—\$30,000 Metcalfe county road and bridge bonds are voted. Address County Commrs.

Ky., Morganfield.—\$400,000 Union county road bonds are voted. Address County Commrs.

Ky., Princeton.—Petition is being circulated in Caldwell county asking County Judge to call an election to vote on road-improvement bonds. Address County Commissioners.

Ky., Somerset.—\$300,000 4½ per cent. Pulaski county road bonds have been purchased at \$6655 premium by Fifth-Third National Bank of Cincinnati.

Ky., Whitesburg.—Election is to be held in Letcher county May 2 to vote on \$300,000 road bonds. Henry T. Day is County Judge.

Ky., Winchester.—Bids will be received by S. B. Tracy, City Clerk, until 8 P. M. Apr. 7 for \$12,500 6 per cent. street-improvement bonds.

La., Lafayette.—Election is to be held May 2 to vote on \$20,000 fire-protection and alarm system; \$30,000 water-works, \$35,000 school and \$15,000 park 5 per cent. 40-year bonds. Address The Mayor.

Md., Aberdeen.—Legislature has authorized issue of \$5000 town-improvement bonds. Address Town Commrs.

Md., Annapolis.—Bill is before the Legislature authorizing the State of Maryland to issue \$3,000,000 bonds as follows: Roads and bridges, \$2,700,000; armories at Westminster, Cambridge and Hyattsville, \$100,000; Maryland Agricultural College, \$174,000; dormitories at the State Normal School at Frostburg, \$26,000. Address Gov. Harrington.

Md., Brunswick.—Legislature has authorized issue of \$75,000 water-works bonds. Address The Mayor.

Md., Cumberland.—Bids will be received until May 15 by A. W. Straub, City Clerk, for \$60,000 4½ per cent. bridge bonds.

Md., Grantsville.—Election was held Apr. 4 to vote on \$15,000 5 per cent. 20-year \$250 denomination sewer bonds. Result not stated. H. C. Bonig is Mayor.

Md., Rockville.—Montgomery county is authorized by Legislature to issue road bonds. Address County Commrs.

Miss., Baldwin.—\$10,000 6 per cent. 1-20-year \$30 and \$1000 denomination bonds for electric-light plant and water-works system are voted. Bids for same will be opened May 2. W. A. Stocks is Mayor.

Miss., Columbus.—Supvrs. Dist. 1, Lowndes county, has voted \$40,000 road bonds. Commrs.: A. M. Lawrence, Caledonia; W. N. Hutchinson and Z. N. Goulshy, Columbus.

Miss., Greenwood.—The \$600,000 road bonds which Leflore county proposes to issue will be 25-year 5 per cents. Address Board of Supvrs.

Miss., Indiana.—Steps are being taken in Sunflower county to issue \$1,000,000 road bonds. Address County Commrs.

Miss., Jackson.—The Mississippi Senate has passed bill authorizing issue of \$125,000 bonds for repairing old Statehouse.

Miss., Laurel.—Mass-meeting is soon to be held to consider question of issuing \$15,000 bonds for establishment of a Jones county agricultural fair in Laurel. T. G. McCaulum is Mayor.

Miss., Liberty.—\$300,000 Amite county road-construction bonds will probably be issued. Address County Commrs.

Miss., Quitman.—Election is to be called to vote on drainage bonds. Address The Mayor.

Mo., Bolivar.—\$40,000 Bolivar Dist. and \$40,000 Miller Dist., Polk county, road bonds were recently voted. Address County Commrs.

Mo., Greenville.—Election is to be held in Wayne county Apr. 29 to vote on \$300,000 road-building bonds. Address County Commissioners.

Mo., Hume.—Election will be held Apr. 4 to vote on \$30,000 Hume School Dist. school-building bonds. John B. Bryant is Pres. Board of Education. (Previously noted.)

Mo., Memphis.—The \$25,000 electric-light bonds recently voted are 5-25-year 5 per cents; denomination \$1000. Earl McDaniel is City Clerk.

Mo., Moberly.—Dispatch to Manufacturers Record says that \$100,000 5 per cent. 10-20-year school-building bonds have been purchased by Wm. R. Compton Co., St. Louis, Mo., at \$104,810.

Mo., Mt. Vernon.—\$60,000 5 per cent. Aurora Special Road Dist., Lawrence county, road bonds are voted. Address County Commrs.

Mo., Mt. Vernon.—Election is soon to be held to vote on bonds Verona Special Road Dist., Lawrence county. Address County Commrs.

Mo., Webster Groves.—\$15,000 fire equipment and \$17,000 water-main extension 4½ per cent. 20-year \$100 denomination bonds are voted. Date for opening bids not yet decided. Address L. F. Booth, City Treas. R. L. Wilson is City Clerk.

N. C., Cedar Rock, P. O. Louisburg.—\$30,000 Cedar Rock township, Franklin county, bonds are voted. Address County Commrs.

N. C., Durham.—\$75,000 5 per cent. 1-25-year school bonds have been purchased jointly at \$4304.25 premium by Hambleton & Co., Baltimore, Md., and Citizens' National Bank, Frostburg, Md.

N. C., Reidsville.—\$10,000 5 per cent. 25-year sewer bonds have been voted by the Town Commrs. The entire issue was purchased at par by the Citizens' Bank.

N. C., Reidsville.—Dispatch to Manufacturers Record says that bids will be received until 8 P. M. April 15 for \$20,000 5 per cent. 20-year \$1000 denomination school bonds. Address W. C. Harris, Secy. Committee Board Bond Trustees.

N. C., Zebulon.—\$8000 light and \$2000 street-improvement 6 per cent. 20-year bonds were voted March 15; dated Jan. 1, 1916; date for opening bids not yet decided. Address Dr. J. F. Caltrone.

Okla., Ada.—\$8000 Fitzhugh School Dist., Pontotoc county, school bonds are voted. Address Board of School Trustees.

Okla., Ardmore.—Election will probably be held to vote on \$40,000 school bonds. Address Board of Education.

Okla., Blackwell.—Election is to be held Apr. 19 to vote on \$60,000 25-year bonds as follows, interest not to exceed 6 per cent.: Water-works, \$32,000; electric lights, \$10,000; sewers, \$18,000. Bonds have already been sold at par to G. I. Gilbert, Oklahoma City. H. R. West is Mayor.

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Okla., McAlester.—Steps are being taken to call an election to vote on \$600,000 Pittsburg county road bonds. Address County Commrs.

Okla., New Wilson.—\$25,000 water and power-house bonds recently voted have been purchased by an Oklahoma City firm. C. W. Henson is Town Clerk.

Okla., Okmulgee.—\$125,000 5 per cent. 20-year Okmulgee county courthouse and jail bonds will be sold at public auction Apr. 24. Address J. A. Price, Pres. First National Bank Okmulgee.

Okla., Pauls Valley.—\$16,000 water-works-improvement bonds are reported sold. T. L. Kendall is Mayor.

S. C., Bamberg.—Steps are being taken to call an election to vote on \$15,000 water bonds. Address The Mayor.

S. C., Greenville.—Petitions are being circulated asking the School Board to call an election to vote on \$50,000 school bonds.

S. C., Greenwood.—Six per cent. street-paving certificates have been purchased by Sidney Spitzer & Co., Toledo. On a basis of \$50,000 the premium is \$1755. A. S. Hartzog is Mayor.

S. C., Ninety-Six.—\$15,000 6 per cent. electric-light bonds were voted Mch. 31; date for opening bids not yet decided. Address D. M. Lipscomb. W. W. Gaines is Mayor.

S. C., Taylors.—Election is to be held Apr. 11 to vote on \$7000 school bonds. Address Board School Trustees.

Tenn., Chattanooga.—\$236 6 per cent. street bonds have been purchased at \$71.50 premium by the American Trust & Banking Co., Chattanooga.

Tenn., Covington.—Election is to be held in Tipton county Apr. 25 to vote on 5 per cent. 30-year school-improvement bonds; amount not to exceed \$20,000; denomination \$500. J. Winfield Darby is Mayor.

Tenn., Johnson City.—Election is to be held Apr. 29 to vote on \$37,500 courthouse bonds. Address Commrs. Washington County at Jonesboro.

Tenn., Harriman.—Election is to be held May 6 to vote on \$40,000 school-building bonds. Address Board of Education.

Tenn., Pulaski.—\$500,000 5 per cent. 1-40-year Giles county road bonds defeated.

Tex., Austin.—The Attorney-General has approved the following securities: \$125,000 funding, \$200,000 water-works, \$300,000 beach-filling and \$250,000 street-improvement 5 per cent. Galveston bonds; \$100,000 5 per cent. 40-year bonds Henderson county, Road Dist. No. 1; \$250,000 5 per cent. 10-40-year road bonds Improvement Dist. No. 4, Honey Grove Section, Fannin county; \$60,000 public school building, \$45,000 sewer and \$15,000 water-works 4½ per cent. 10-40-year bonds, Marlin; \$17,500 5 per cent. 10-40-year bonds Menardville Independent School Dist.

Tex., Bellevue.—Steps have been taken to call an election to vote on school bonds. Address Board of Education.

Tex., Royce City.—\$30,000 school building bonds are voted. Address Bd. of Trustees.

Tex., Caldwell.—Election is to be held in Burleson county Apr. 28 to vote on \$100,000 bonds Road Dist. No. 1. Address County Commrs.

Tex., Carthage.—\$20,000 6 per cent. 1-20-year Panola county road and bridge warrants have been purchased by J. L. Arlitt, Austin, Tex.

Tex., Cleburne.—Freeland and Willow Branch School Dist., Johnson county, have circulated petitions for consolidation of the districts. It is proposed to issue \$3500 of bonds. Address Board of Trustees.

Tex., Crumby.—\$8000 school building bonds are voted. Address Bd. of Education.

Tex., Dallas.—Petition is being circulated in Estell Common School Dist. No. 52, Dallas county, calling for an election to vote on \$6000 school bonds. Address T. E. Henry, County School Supt.

Tex., Denton.—School bonds will probably be issued. Address Denton County School Board. J. W. Beatty is City Supt. of Schools.

Tex., Eastland.—Clisco precinct, Eastland county, has voted road bonds. Address County Commrs.

Tex., Fort Worth.—Election will probably be called in Tarrant county to vote on \$5,000 levee bonds. R. G. Johnson, W. B. King and J. J. Lydon, Levee Commrs.

Tex., Fort Worth.—Election is to be held Apr. 29 to vote on \$5000 5 per cent. 40-year bonds common school district No. 98, Tarrant county. Address County Commrs.

Tex., Edinburg.—Election is to be held Apr. 22 to vote on \$250,000 Hidalgo county road bonds. Address County Commrs.

Tex., Guadalupe.—\$10,000 Guadalupe School Dist. bonds are voted. Address Board of Education.

Tex., Greenville.—Steps are being taken in Hunt county to call an election to vote on \$1,000,000 road bonds. Address County Commissioners.

Tex., Hereford.—\$13,000 school bonds have been voted and sold. Address School Board.

Tex., Lockhart.—\$10,000 5 per cent. 40-year \$500 denomination bonds Martindale Dist., Caldwell county, have been purchased at par by the First National Bank of Lockhart.

Tex., Lometa.—\$10,000 school bonds have been voted. Address Board of Education.

Tex., Mount Pleasant.—Election is to be held Apr. 13 to vote on \$75,000 Winfield precinct, Titus county, road bonds. Address County Commrs.

Tex., Mount Vernon.—\$200,000 Precinct No. 1, Franklin county, road bonds defeated. Plans are being made to change the precinct and vote in different territory. A. L. Reeves is County Judge.

Tex., Orange.—Orange County Commrs. have approved \$40,000 20-40-year \$1000 denomination Special Road Dist. No. 2, Precinct No. 4, road bonds, which are to be signed by the County Judge and then offered for sale.

Tex., Plainview.—Bids will be opened 8 P. M. Apr. 14 for \$50,000 5 per cent. 20-40-year \$1000 denomination Plainview Dist. school bonds, dated Mch. 15, 1916. H. E. Skaggs is Pres. Board of Trustees.

Tex., Quitman.—Election to vote on \$40,000 bonds Road Dist. No. 2, Wood county, will be held Apr. 29. R. E. Rizeman is County Judge.

Tex., Rio Grande.—\$50,000 5 per cent. 40-year Starr county bonds are voted. Address County Commissioners.

Tex., Rio Vista.—\$16,500 school bonds are voted. Address Bd. of School Trustees.

Tex., Streetman.—Election is to be called to vote on \$62,000 road bonds. Address The Mayor.

Tex., Terrell.—Poetry Independent School Dist., Kaufman county, school bonds are voted. Address Board of Trustees.

Tex., Wharton.—Election is soon to be held in Louise Dist., Wharton county, to vote on \$75,000 road bonds. Address County Commissioners.

Tex., Wharton.—\$75,000 Dist. No. 2 (El Campo) Wharton county road bonds defeated.

Va., Altavista.—Election is to be held Apr. 15 to vote on water and sewer bonds. Address The Mayor.

Va., Christiansburg.—\$100,000 4½ per cent. 5-30-year Montgomery county road bonds are to be offered. Address Board of County Supervisors.

Va., Portsmouth.—Bids will be received until noon Apr. 12 for \$15,000 5 per cent. 20-year bonds Western Branch Magisterial Dist. No. 1, Norfolk county. S. E. Wiley is Clerk School Board of said district.

Va., Portsmouth.—Bids will be received until noon Apr. 12 for \$45,000 5 per cent. 20-year bonds Washington Magisterial Dist. No. 5, Norfolk county. Address T. W. Bell, Clerk School Board of said district.

Va., Roanoke.—\$300,000 4½ per cent. 30-year \$1000 denomination school bonds are voted; \$125,000 will be ready for sale in about 60 days. C. M. Brown is Mayor and P. H. Tucker City Auditor.

Va., Spotsylvania.—\$13,000 Berkley Dist. and \$5000 Livingston Dist. 5 per cent. 5-30-year Spotsylvania county road bonds have been purchased jointly by the Farmers and Merchants' State Bank and the Planters' National Bank of Fredericksburg at \$108.30.

W. Va., Madison.—On Apr. 14 town will offer for sale \$500,000 6 per cent. 10-34-year \$500 denomination water-works bonds, dated Mch. 1, 1916. Address W. B. Wade, Recorder.

W. Va., Hinton.—Summers county has for sale \$170,000 bonds. Address J. M. Carden, Clerk County Court or T. H. Lilly.

FINANCIAL NOTES

The West Virginia Bankers' Association will hold its annual convention at Wheeling on May 24 and 25. Joseph S. Hill of Charleston is Secy.-Treas.

A report from Atlanta says that the deposits in the seven clearing-house banks of that city are now \$36,358,000, or \$5,029,000 more than they were at this time last year and exceeding the previous high record of November last, notwithstanding that the Secretary of the Treasury has withdrawn United States deposits from the national banks, of which \$750,000 were held in local institutions.

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Progressive Banking Plan Adopted.

The National Exchange Bank of Baltimore has adopted a new and progressive plan for the convenience of its customers by doing away with the distinction of "paying teller" and "receiving teller," respectively, and hereafter each of the tellers will either pay or receive money as may be necessary, which will lessen delays in the conduct of business. Thus there will be hereafter less need for a long line of customers at either of the teller's windows, because they can always select the window where early attention to their requirements is indicated by the shortness of the line in busy hours. The advantage of the change is perhaps most apparent when it is observed that in the case of a customer wishing to make a deposit and also to cash a check he can do both at the same window instead of being obliged to make a change and thus probably have to wait a while at each teller's position. This plan, the bank remarks, has been successfully operated in other cities, and it is believed that this first adoption of it in Baltimore will be equally popular. Waldo Newcomer is president; Summerfield Baldwin, vice-president; R. Vinton Landsdale, cashier, and Clinton G. Morgan and Joseph W. Leffler, assistant cashiers.

TRADE LITERATURE.

Piano and Organ Guide.

Hints on the purchase and care of pianos and organs introduce a directory, published by the Music Trades Co., 505 Fifth Ave., New York, of the leading manufacturers of these instruments in this country. The volume of 36 pages is compiled by John C. Freund, editor of the Music Trades.

Grab Buckets.

Two standard types of grab buckets, AE and ZB, manufactured by the Link-Belt Co., Chicago, are described in a circular issued by the manufacturer. These types are built for hard service and are said to be winning constantly increasing recognition for handling all kinds of materials through their ruggedness and capability.

Packard Truck Digest.

A publication of the above name is the latest addition to Packard Motor Car Co. (Detroit) literature. A sketch of the growth of Packard truck manufacture from 25 in 1908 to 1802 in 1915, or 17,500 per cent. in seven years, is given. Trucks in war and peaceful pursuits are illustrated and the inside of the machine that is claimed to cut the cost of hauling shown.

Large Stack Erected.

An article in the March issue of Ideal Power, organ of the Chicago Pneumatic Tool Co., Chicago, gives a brief description of a large stack recently erected in New Orleans by the Alex. Dussel Co., with Chicago pneumatic tools. The stack is 60 inches in diameter by 125 feet high. An illustration shows the great size of the stack top compared with men standing by.

Manganese Steel Transmission.

Bulletin No. 171 from the Jeffrey Manufacturing Co., Columbus, O., contains details and prices of detachable Peerless and Hercules types of manganese steel chains, sprockets and attachments, claimed to insure a maximum of elevator and conveyor service where abrasive matter comes in contact with moving parts. New styles are being added to those listed, which are carried in stock, as fast as facilities permit.

Protective Paint.

Facilities of reorders from large manufacturers are given in a recently issued pamphlet from the Jones Paint Co., Rome, N. Y., as proof of the superior qualities of its protective roof paint, for metal, wood or composition roofs, stacks or other exposed parts. It is claimed to be durable and elastic, waterproof, non-combustible and

fire retardant, acid and alkali proof, adhesive and light, non-shifting, easy to apply, economical.

Lathe Operating Guide.

A manual for the operators' guidance in using Lodge & Shipley engine lathes and attachments has been issued by the manufacturer, the Lodge & Shipley Tool Co., Cincinnati, O. It gives brief descriptions of the different parts of the lathe, instructions for operating, suggestions for handling work, grinding tools, etc. Users of the machines will be mailed copies gratis upon application.

Steel Concrete Culvert Forms.

Bigger profits in concrete culvert construction are claimed by the Blaw Steel Construction Co., Pittsburgh, to be obtainable with its rectangular adjustable steel culvert form. The company contends that the monolithic culvert is of proven superiority and claims its form to be most suitable to the construction of this type of culvert. In a recently issued circular the reasons for these positions are given, with illustrations of the forms, and specifications.

Catalogue and Concrete Information.

In issuing a recent catalogue of Winner concrete mixers the Cement Tile Machinery Co., 124 Rath St., Waterloo, Iowa, manufacturer, deviated from the usual practice in alternating illustrations and descriptions of this mixer for small wet batch work, with information that is intended to be of value to the contractor in his work. The Concrete Dope Book is the title, and it will be mailed on request. The company intends making this an annual publication.

Road Surface Applied Liquid.

Principles and practice of road surfacing, as distinguished from application of oil for dust laying, are treated in a booklet issued by the Barber Asphalt Paving Co., Philadelphia, in which Trinidad liquid asphalt is offered as the solution to the problem. Specifications for the laying of asphalt carpet coats are included and the results of the process recommended shown in illustration of asphalt streets and roads in various parts of the country from Florida to Wisconsin.

Heavy Duty Roller Bearings.

Fully describing and illustrating roller bearings for heavy machine service, bulletin 1003 has been issued by the American Roller Bearing Co., Pittsburgh. The design is claimed in the pamphlet to eliminate all small parts and present a bearing capable of performing under the most severe conditions, and embodying unique features that conduce high efficiency, long life and cut maintenance cost practically to nothing. Special bearings are designed by the company's engineering corps to meet individual needs.

Safety on the Highway.

The importance of ridding road and street corners of dangerous blinds that have caused so many accidents is urged in the leading article of the April issue of the Highway Magazine, published by the American Rolling Mill Co., Middletown, O. Views show road corners rounded and properly banked, with obstructions to the driver's vision removed. Automobileists are warned to take curves slowly, on the right side, upon the observance of which precaution the curve loses its peril.

Electrical Measuring Instruments.

Bulletin 100 has been issued by the Roller-Smith Co., 203 Broadway, New York, describing a part of its complete line of electrical measuring and protective apparatus. Special attention is called to the newly developed S. S. type direct reading ohmmeter, a modified form of the company's portable ohmmeter that has been on the market some years. It is in general a slide wire bridge having self-contained galvanometer stated to be of sensitive but rugged design, self-contained dry cells, galvanometer key, stylus and self-contained resistances.

Bridge Designs.

A list of the bridges built and under construction designed under the direction and patents of the Strauss Bascul Bridge Co., consulting and designing engineers, 104 S. Michigan Ave., Chicago, Ill., and illustrations of some of the representative jobs, have been issued by that company. Among the bridges listed are those of bascule type, claimed to be, of that type, the longest single and double-leaf, the first double-deck, and the widest in the world, and the only counter-balanced direct lift bridges built without cables of chains. The company's clientele includes governments and private corporations or individuals nearly all over the world, and nearly every railroad in the United States.

The Only Possible Basis for Real National Preparedness

Stimulated by present conditions, the nation may feverishly undertake to create an army and enlarge our navy.

But under existing iron and steel conditions there can be no true national preparedness.

Neither armies nor navies can fight without guns or ships, and neither can be produced without steel.

Guns are worthless without explosives, and armies and navies are worthless without guns, shells and explosives.

This country has its steel-making interests so concentrated that in the event of war go to 95 per cent. of it could be instantaneously cut off.

It has its munition-making plants in a limited area on the seaboard, dependent upon this steel.

It has its shipyards in the same small area, and they, too, are dependent upon these ores.

It has its powder factories in the same limited area, easily assailed and destroyed by an invading enemy.

It depends for nitrates, essential in the manufacture of powder and for fertilizers, upon Chile, 3000 miles away, and in time of war this supply could be easily and immediately cut off by an enemy.

Of what avail would be an army, however big, or a navy, however strong in ships, if both had to remain idle because we had no steel and could make no guns nor shells, nor expand our railroads to meet war conditions, and if we had no powder for the guns.

And yet all of these disasters could easily be brought upon us, and the army and navy officers fully realize the situation.

If our business men, our financiers and our Government do not aggressively and unceasingly work to change these conditions, will they not be recreant to their responsibilities to the people of this land, to their own financial interests and to the world's democracy?

These dangers, now seen in all their magnitude by some of our people, are not realized by all.

Their extent and how to meet them are fully covered in a 100-page book, entitled "National Insuredness Through National Preparedness," consisting of editorial discussions of the matter in the Manufacturers Record.

There is only one possible way of meeting the dangers here outlined, and that is clearly set forth in this book. Price 50 cents per copy; in lots of 25 or more, 40 cents. Read it and pass it on to your friends, or order copies for your customers or friends. In so doing you will be helping to make safe the nation's life.

Classified Opportunities

MINERAL AND TIMBER LANDS WATER POWERS MISCELLANEOUS PROPERTIES

HAVE YOU A VALUABLE PROPERTY FOR SALE? Farm, timber land, mineral property or any other? We can help you get in touch with possible purchasers by an advertisement in these columns. For rates see head of this department.

FOR SALE—Valuable manganese property, consisting of 1400 acres of land and \$300,000 plant and equipment. The plant is now operated night and day. Big opportunity for person or persons with the necessary capital.

FOR SALE OR TRADE—1000 acres of coal in Braxton county, West Virginia. Railroad runs through the property. Price \$30,000, or will trade for first-class Virginia farm.

FOR SALE OR TRADE—Fine farm of 70 acres in Albemarle county, Virginia, near Charlottesville. Price \$6500. Will trade for good city property.

FOR SALE—Fine farm in Northumberland county, Virginia, fronting on Chesapeake Bay; 170 acres; 150 in cultivation; 20 in woodland; good buildings. Price \$12,000. Reasonable terms.

P. A. Green & Company, Room 11, Real Estate Exchange, Richmond, Virginia.

LAND GRANT—\$6,349.9 acres in New Mexico. Soil is a silt deposit from two rivers, and is known to be the richest kind of land for farming and fruit raising. This grant is made of valley and low mesa land, with a little high tableland. Two rivers water the grant. 30,000 acres of valley land susceptible to irrigation and the highest state of cultivation. Every kind of a cereal, grapes, fruits, except tropical fruits, can be successfully raised. Sugar beets and bee culture are important industries. 4 crops of alfalfa each season and 8000 head of cattle can graze this range without interfering with other enterprises. Grant is in a solid block with timber for stock protection, fence posts and fuel. 14 miles main-line transcontinental railroad crosses the grant. Coal beds, building stone and onyx underlie this tract. Upon request will furnish reports of U. S. deputy surveyors. A fortune in this grant for someone. Absolutely the cheapest tract of land on the market today. Price \$2 per acre, all cash. Our information bureau is at your command. Panhandle Land Co., Canadian, Tex.

WE OWN 8000 acres fine hardwood timber land, original growth. A large body of talc and immense beds of vari-colored marbles; also, 5000 H. P. water-power; all immediately on Southern Railway. We want additional capital to develop. Handsome dividends. North Carolina Talc and Mining Company, Hewitts, N. C.

FOR SALE—2500 acres in the Arkansas zinc fields; rich in zinc and lead; whole tract covered with timber; will cut 4000 feet per acre, mostly over cup oak. Tremendous bargain at \$15 per acre. J. C. Harrison, Clarksville, Ark.

FORTY ACRES proven mineral land, two miles from Yellville, Marion county, Arkansas, greatest zinc field known. Sulphide and carbonate shown up. Plenty timber and water. Being worked under lease giving owners 10 per cent. royalty. Five thousand dollars for fee. Fredricks, Yellville, Ark.

TIMBER, MINERAL AND FARM LANDS IN FLORIDA is our business for over thirty years. We are up to date on Florida properties. Surveys and expert reports carefully and promptly made on all classes of properties. W. L. Van Duzer Co., Clermont, Fla.

FOR SALE OR LEASE—A large tract of land containing feldspar (3 to 7 per cent. potash), also fuller's earth and kaolin. This land is close to S. A. L. R. R. Address Jas. A. & W. E. Hill, Abbeville, S. C.

FOR SALE—Extensive and valuable brown iron, manganese and baryta deposits; developed and undeveloped. Box 908, Cartersville, Ga.

FOR SALE—Iron, Coal and Timber Lands in Virginia, Tennessee and Kentucky. Address W. S. Palmer, Keokee, Va., or J. F. Munsey, Hagan, Va.

I HAVE 2000 acres of brown ore lands for sale in Franklin county, Ala. Call or write to C. E. Wilson, Sr., at Russellville, Ala., for price and terms.

ZINC MINE

ZINC MINE, well-developed ore body, on large lease; low royalty; will give good interest for mill. Address W. J. Robinson, Box 717, Joplin, Mo.

ZINC LAND

ZINC LAND FOR SALE—In Marion County (Ark.) zinc field. We own and offer 6000 acres in tracts of 20 acres up at \$4.50 to \$125 per acre, according to location and development work done. Also lease on going zinc mine of 160 acres with up-to-date mill. Three new railroads projected into this field, two of which are now building. Address Box 167, Cotter, Ark.

MICA MINE

MICA MINE FOR SALE—Produces large quantities of the finest qualities. Terms reasonable. For further particulars address A. S. Nichols, M.D., Sylva, N. C.

RATES AND CONDITIONS

Rate 20 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 18c. per line; 300 lines, 16c. per line; 500 lines or more, 15c. per line.

IRON AND MANGANESE DEPOSITS

MANGANESE property for sale or lease. Half mile of siding on Southern R. R. Plenty of convenient water for washing. Successful working of properties nearby. Address T. N. Langhorne, Evinston, Campbell Co., Va.

FOR SALE—Valuable deposit Manganese and Iron. Analysis Iron, 67%; Manganese, 53%. These ores recently found Piedmont Virginia; never been exploited. Sell mineral right or work royalty basis reliable parties. Jos. M. Samuels, Orange, Va.

COAL AND ORE LANDS

BARGAINS—FOR SALE. 10,000 acres Coal Lands in Great Warrior Coal Basin, several miles frontage on Warrior River. These lands carry the celebrated Pratt Seam and other large seams of coal. I have for sale the largest deposit of Manganese Ore Lands in the whole country, estimated over 2,000,000 tons.

Large tracts of high-grade Coal Lands in Eastern and Western Kentucky. 3000 acres Red Ore Land and 1000 acres Self-Fluxing Ore Lands, well located in Birmingham District. T. S. Smith, 1015-16 First National Bank Bldg., Birmingham, Ala.

COAL LAND AND MINE

MINE READY FOR OPERATION—24,000 ACRES GOOD COAL LAND FOR SALE CHEAP TO CLOSE AN ESTATE.—24,000 acres good coal land, with a mine ready to operate, power plant, mining machines, cars, etc.; 14 miles of standard and narrow-gauge railroad, connecting with the Southern Railway at Lim Rock, Ala. 65 miles westerly from Chattanooga; 4 locomotives, cars; 80 dwellings and large commissary. Much valuable hardwood timber, with 2 good sawmills; most of the land on Cumberland plateau suitable for agriculture when cleared; coal known as Belmont Block, very hard, high in volatile matter, excellent for domestic use. Low freight rates and best of markets. For full particulars, price and terms address F. D. Pierce, Bridgeport, Ala.

COAL LAND

COAL LAND FOR SALE—Four thousand acres of coal land in McDowell county, West Virginia, on the Norfolk & Western Railway, carrying a six-foot vein of the celebrated Mohawk steaming coal, also a four-foot vein of good domestic coal.

Very desirable property with unusual railroad facilities. An opportunity for the establishing of three operations. Address Kendelline & Wygal, Radford, Virginia.

ILLINOIS COAL ACREAGE—530 to 10,000 acres best Illinois Coal, 13,100 to 13,600 B. T. U. Bituminous. Becoming known that Southern Illinois has close second to Pittsburgh coal, 65% now owned by corporations. A wonderful safe, sane investment. 25% profits to those operating well equipped mines. I can prove all I claim. Will show you around if interested. My specialty, coal acreage and going mines. S. J. Burkitt, Moweaqua, Ill.

ARKANSAS COAL LANDS—800 acres, 4-foot vein. Mile from R. R. This tract absolutely controls 2200 more than can be taken up when needed. P. H. Thompson, Fort Smith, Arkansas.

WISE COUNTY, VA. COAL ACREAGE—1000 acres for sale or lease. Stonegas coking vein. Roda gas vein. Drift openings. Price reasonable. Write owner for full information. Address Box 199, Lancaster, Pa.

COAL AND TIMBER LANDS

10,000 ACRES in Bledsoe County, Tenn.; 25,000,000 feet of hardwood, also coal. 25,000 acres in Grundy County, Tenn.; railroad through the property. 109,000,000 feet, also coal. 15,000 acres. Scott and Morgan Counties, Tenn. 59,000,000 feet, also coal and oil. 30,000 acres, 185,000,000 feet, 75% pine timber, in Cumberland and Blaine Counties, N. C. By H. C. Hoggard & Co., Norfolk, Virginia.

FOR SALE—9000 acres coal and virgin timber in Harlan county, Ky. on the L. & N. R. R.; 5 seams high-grade coal 4 ft. to 9 ft. thick. Title perfect. Come and see and be convinced. Smith Ledford, Harlan, Ky., Box 116.

FOR SALE—Coal and timber lands in Southeastern Kentucky near railroads; any sized tracts; also mineral and timber tracts in East Tennessee. Spears Havelly, Hubbard Springs, Va.

TIMBER LAND

16,000 ACRES in Alabama on two rivers, with 15 years to cut and remove, estimated to cut 61,746,400 ft. of principally hardwood timber from 18 to 50 inches on the stump; average size 26 inches; tall and nice. 14,000 acres in Dickenson county, Va., on the waters of the Big Sandy River; down haul to river and also to C. & C. and Ohio R. R.; 60 per cent. oak, 20 per cent. poplar, 20 per cent. chestnut, hemlock, etc.; 20 years to cut and remove. The prices on both tracts are reasonable to quick purchaser. H. C. Hoggard & Co., Norfolk, Va.

TIMBER LANDS FOR SALE—23,640 acres in Florida, estimated to cut 70,500,000 feet long-leaf yellow pine, 840,000 feet of cypress. Also, 50,000,000 feet of pine, cypress, poplar, red and white oak, red and white gum, in South Carolina. This estimate was made by a man of 40 years' experience. Only 1153 acres is in fee; remainder 12 years to cut and remove. H. C. Hoggard & Co., Norfolk, Va.

PINE AND HARDWOOD TIMBER—40,000 acres virgin pine, Louisiana. 10,000 acres virgin pine, Mississippi. Several tracts pine, 5 to 50,000 acres. Virgin hardwood tracts, 5 to 50,000 acres. Write J. L. Farley, De Soto, Mo.

TIMBER

FOR SALE—BY OWNERS—Several tracts hardwood timber, white oak and chestnut oak, in boundaries from 2,000,000 to 15,000,000 feet, located on Chesapeake & Ohio Railway in Alleghany county, Virginia; also on branch Norfolk & Western Railway in Craig county, Virginia, and Monroe county, West Virginia. Address "Timber," P. O. Box 865, Charleston, W. Va.

REAL TIMBER BARGAINS—50,000,000 ft.; 70% N. C. pine, poplar and cypress, all original growth; on Southern R. R. in South Carolina. Liberal terms and low price. J. P. Mulherin (owner), Augusta, Ga.

LUMBER

FOR SALE—Dressed or rough, 400,000 to 500,000 ft. second growth Middle Ga. pine lumber. Bank reference required and given. A. J. Orr, Washington, Ga., R. F. D. No. 2.

SAWMILL TIMBER, ETC.

FOR SALE—Timber tract, mill, equipment, etc., on the Pacific Coast. Going concern. An opportunity which cannot be hawked. This is a large proposition and only interested need write. L. N., Box 596, Buffalo, N. Y.

SAWMILL AND TIMBER FOR SALE—We have a hand mill almost as good as new, installed and ready to operate, with 20,000,000 ft. hardwood timber. Will sell cheap. Terms easy. J. S. Cowart, Arlington, Ga.

FARM AND TIMBER LANDS

4000 ACRES, half timber and half cut-over land, for sale, preferably as a whole or in tracts of not less than 1000 acres each; property adjoins the town of Surrency, Appling county, Ga., on Southern Railway main line; fine stand of both pine and cypress timber; ideal location for stock farm or combination mill and colony farming. Land in vicinity noted for its record production of staple crops. For sale by owner, attractive price and terms, especially if bought as a whole. Wm. Hurd Hillyer, Atlanta, Ga.

SEVEN MILLION FEET of good saw timber, mostly yellow pine; nice size; long and smooth; together with 1508 acres of good land in Amelia Co., Va. This property has never been on the market before. Price \$23,000. Green & Redd, 9th and Franklin Sts., Richmond, Va.

WE OWN LARGE TRACTS OF TIMBER LANDS, cut-over lands and colonizing lands. If interested, address H. H. Wefel, Jr., & Co., Mobile, Alabama.

TWO MILLION FEET of good saw timber (by estimate), together with 450-acre farm. All for \$7500. 5 miles from station. Green & Redd, 9th and Franklin Sts., Richmond, Va.

SEND for Descriptive Bulletin No. 14 on Georgia farms, timber land, stock ranches and pecan groves. Brotherton & Callahan, East Point, Ga. (Near Atlanta).

OIL AND FARM LAND

FOR SALE—1160 acres good land in Casieau Parish, La. About half prairie, balance denuded timbered land. About 200 acres creek bottom, which is first-class pasture. All balance good farming land. About 10 miles from village on good railroad. Good school. This is in the oil belt of Southeastern Louisiana and there are good oil indications on part of it. There is no telling what it will develop into. Good reasons for selling. Price \$12.50 per acre. O. S. Doby, Lake Charles, La.

CITY AND SUBURBAN PROPERTIES

THE CITY OF CHARLOTTE, N. C. In spite of wars and rumors of wars, is going steadily on with its building operations and growth.

Over \$150,000 of new homes just being completed or in process of completion.

Over \$750,000 of business and public buildings in process. We offer several very attractive investment opportunities in central business locations. Also, several very well located suburban tracts which are capable of large profits within the next few years. Thirty years' real estate experience in New England and in Charlotte at your service in dealing with F. C. Abbott & Company, Inc., Commercial Bank Bldg., Charlotte, N. C.

SUBDIVISION PROPERTY—300 acres adjoining the city of Tampa in the restricted residential section lying between the two bays. A 100-foot boulevard is to be built through this property running from bay to bay. Will sell as a whole or in 40-acre tracts or will sell an interest in the above tract and develop it. Thos. C. Hammond & Co., Giddens Bldg., Tampa, Fla.

SOUTHERN HOME

CHARMING Winter or Summer Home, located at Beaufort, S. C., on Beaufort River, 3 stories, 12 rooms, 2 baths; 500 feet of piazza; neat 2-room cottage; servants' home; garage, and stable for horse and cow. Lot includes 2 acres of land, lovely lawn and garden, the whole surrounded by a brick wall. The summer breezes are delightful, and the exposed water pipes have never from all this winter. Partridges are plentiful, and a number of deer have been killed nearby. Owner must sell. For further particulars address Rev. C. C. Brown, Beak House, Beaufort, S. C.

REAL ESTATE FOR SALE

FOR SALE—Newport News, Va., is the safest place to invest your money because of its steady and sure growth. The largest shipyard in the world here; has more work now than it can take care of. New industries are coming here continually. We have for sale good rental property that pays 10% on the price, which is \$3900. Also have 10 acres of water-front land between this city and the new Du Pont plant at \$20 per acre. All high and on main automobile road and almost right on the railroad. We have poolroom business, which pays well, that we can sell for only \$850. Write, or better yet, come to see us. We make no charge in showing property. Sommerville Trust Co., Inc., Newport News, Va.

FRUIT, FARM AND TRUCK LANDS

PREPAREDNESS

is the great issue of the day. What this issue means to you as a patriotic American citizen need not be discussed in an editorial. But what it means to you as an individual is another thing. NATIONAL PREPAREDNESS will not likely be affected very largely one way or the other by anything you do or say.

BUT WHO WILL DETERMINE YOUR INDIVIDUAL PREPAREDNESS EXCEPT YOURSELF? Preparedness means to get ready for whatever may happen.

In Europe many industries, mercantile establishments and financial institutions which were paying splendidly two years ago are wiped out of existence and stock in them is valueless. Millions of dollars' worth of city real estate has been destroyed. The only property which has not and cannot be greatly depreciated by the war is FARM LANDS. Factories, stores, banks, and even city buildings may be entirely destroyed after the war, but there will be JUST AS MANY ACRES OF FARM LANDS as ever; and every acre will be just as fertile as it ever was.

Will the United States be in war next year, or the next? Certainly we hope not, but who can tell? You cannot determine the matter one way or the other. BUT YOU CAN INVEST YOUR MONEY WHERE IT WILL PAY YOU SPLENDIDLY AND WHERE, REGARDLESS OF WHAT HAPPENS, IT WILL REMAIN INTACT.

"Broad Acres of Fertile Soil" is the answer. THE OSBORNE LAND COMPANY, FARM SPECIALISTS, BRISTOL, TENN.

P. S.—We sell farms throughout the South, having branch offices and reliable representatives in the best agricultural sections.

THESE COLUMNS ARE CLOSELY READ BY PEOPLE for information of all kinds about Southern properties of every description. If you have a property of any kind that you want to dispose of, try an advertisement in these columns. Others have to their advantage. For rates see head of department.

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